ENGINEERING TOMORROW

Spare Parts Selection Guide - Revision K.1

Danfoss Turbocor® Twin-Turbine Centrifugal Compressors

TT/TG Series Compressors



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List of Changes

Revision	Date	Page	Description of Change
F.5	8-13-2021	63	Added 575V Capacitor option / Combined TTS350 and TTS400 tables
F.6	1-19-2022	81	Updated Cooling Valve Section, Replaced Cooling Valve assembly PNs
		89	Obsoleted EMI filter 901666
		91	Obsoleted Line Reactors 901453, 901974, and 901975
F.7	5-24-2022	86	Removed the Portable Training Simulator
G	1-17-2023	All Pages	Added TGS380 and TTS450 compressor references throughout this manual as required Reformatted tables to clarify the compressor models that each kit APPLIES TO
G.1	1-20-2023	23	Corrected part number for P/T Discharge sensor
H	5-11-2023	58	Added new SCR Cooling Manifold (100309-15) description and image
H		Appendix B	Added new Compressor Interface Cable kit 100058-5 Moved all Interface Cable kits to Appendix B
H		Appendix B	Moved I/O Board Assembly to Appendix B
H		48	Added new DC-DC Fuse kit 100084
H		62	Added new Capacitor Membrane kit 100122
H		23/54	Updated P/T sensor from P/N 100037-1 to 100037-2
J	3-11-2024	57	Corrected Snubber Capacitor table
J		29	Added IGV Ball and Glass kits (100137 and 100138)
J		25	Added refrigerant label kits (199K0002 & 199K0003)
J		23, 32, & 54	Added new P/T Sensor replacement O-ring kit 199K0015
J		91	Changed Rubber Mount torque value to 14Nm instead of 27
J		104	Changed flange kit 100450-1 description to 1-3/8. Was incorrectly labeled as 1-5/8
J		26	Added new Compressor Packaging kits 199K0000 and 199K0001
J		89	Added new dual RS485 I/O Board kit 100410
J		20	Obsoleted Cooling fitting and strainer 100215
J		71	Added new Backplane Assy kit 100021-2 and updated image
J		105	Obsoleted Backplane Assembly kit 100021-1
K	9-5-2024	59	Added SCR Cooling Manifold kit 199K0024
K		74	Added O-ring kits 199K0030 and 199K0031
K		75	Added Cooling Cable and Coil Assy kit 199K0026
K		81	Added Cooling Valve kit 199K0029
K		82	Added Solenoid Plunger Field Upgrade kit 199K0025
K		83	Added Orifice kit 199K0027

Revision	Date	Page	Description of Change
K		84	Added new kit 199K0030 in table at bottom of page
K		85	Added new Plunger Assembly kit 199K0028
K		Appendix D	Obsoleted kits 100309-9, 100242, and 100052-2
K.1	4-15-2025	Appendix C	Added Resonator kits
K.1			Obsoleted SCR Cooling Manifold kit 100309-15
K.1		43	Removed Driver Board kits

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Chapter 1.0 Introduction

1.1 Organization

The TT Series Spare Parts Manual is organized in a top-down manner. Sections include External Components, Top Side, Discharge Side, and Service Side. Spare part kits are differentiated using compressor major revision and part number, which can be found on your compressor's name plate. Refer to the product nomenclature on the following page to determine which major revision your compressor falls under. Knowing the major revision, part number, voltage, and electronics type of your compressor are essential to using this document effectively.

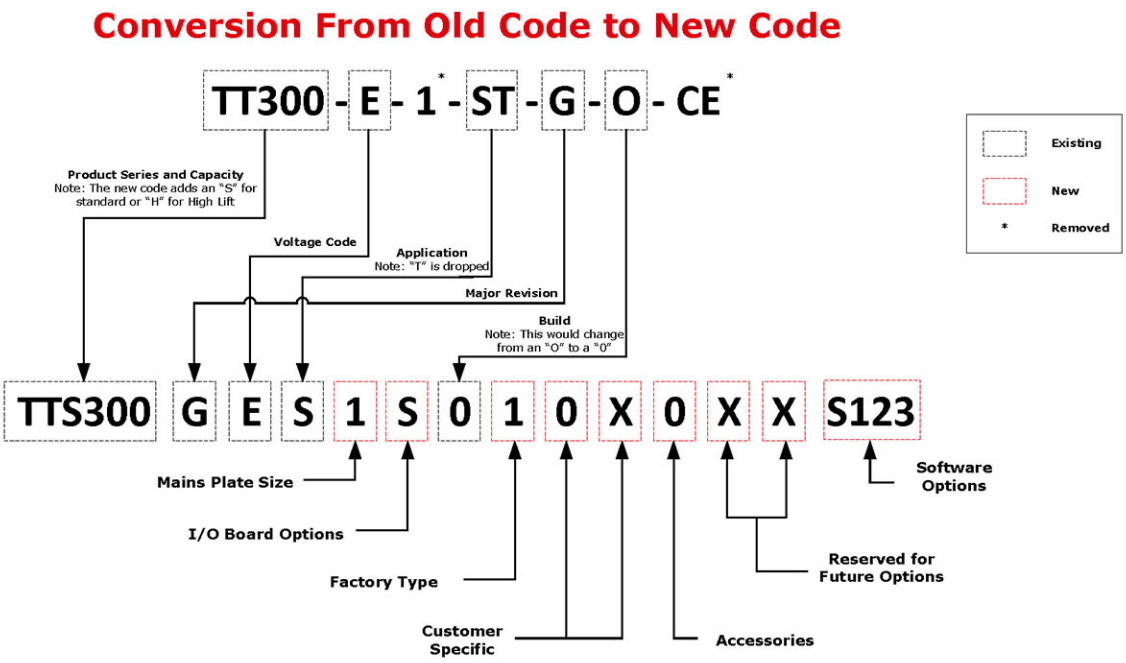
1.2 PDF Navigation

This document contains PDF hyperlinks for easy navigation. Clicking on items in the table of contents, or any blue hyperlink text will take you to the page it references.

1.3 Nomenclature

As of May 6, 2019, the product nomenclature changed. The following two illustrations provide examples of the two different formats. Additionally, the "Series" indicators have an additional character in order to differentiate the standard compressors from high-lift compressors. Unless the compressor is a high-lift design, an "S" will be added (e.g., TTS350). A high lift compressor will have an "H" in the Series designation (e.g., TTH375).

Figure 1-1 Conversion from Old Code to New Code



Type Code Definition

Product Series and Capacity
TTS300: TT Series 300 Aero Config
TTS350: TT Series 350 Aero Config
TTS400: TT Series 400 Aero Config
TTS500: TT Series 500 Aero Config
TTS700: TT Series 700 Aero Config
TGS230: TG Series 230 Aero Config
TGS310: TG Series 310 Aero Config
TGS390: TG Series 390 Aero Config
TGS520: TG Series 520 Aero Config
TTH375: TT High Lift Series 375 Aero Config
TGH285: TG High Lift Series 285 Aero Config

Major Revision
E: Major Revision E
F: Major Revision F
G: Major Revision G

Voltage Code
E: 380V/50Hz
D: 380V/60Hz
H: 400V/50Hz
J: 400V/60Hz
G: 460V/60Hz
F: 575V/60Hz

Application
S: Standard Application
M: Medium Temperature Application
J: Standard Temp KHK Listed
K: Medium Temp KHK Listed

Mains Plate Size
1: Mains Plate 2.00"
2: Mains Plate 2.48"
3: Mains Plate 3.00"
4: Mains Plate 3.50"

I/O Board Option
S: I/O Board included with 5m cable
M: No I/O Board, 5m cable Included

Build
0: New Compressor
C: Rebuilt Certified Compressor

Factory Type
1: TLH Factory (CE Rated)
2: HYN Factory (CH Rated)
3: TLH Factory (NC Rated)

Customer Specific Configuration
0: Gen Covers/Plate, EN/FR/CH

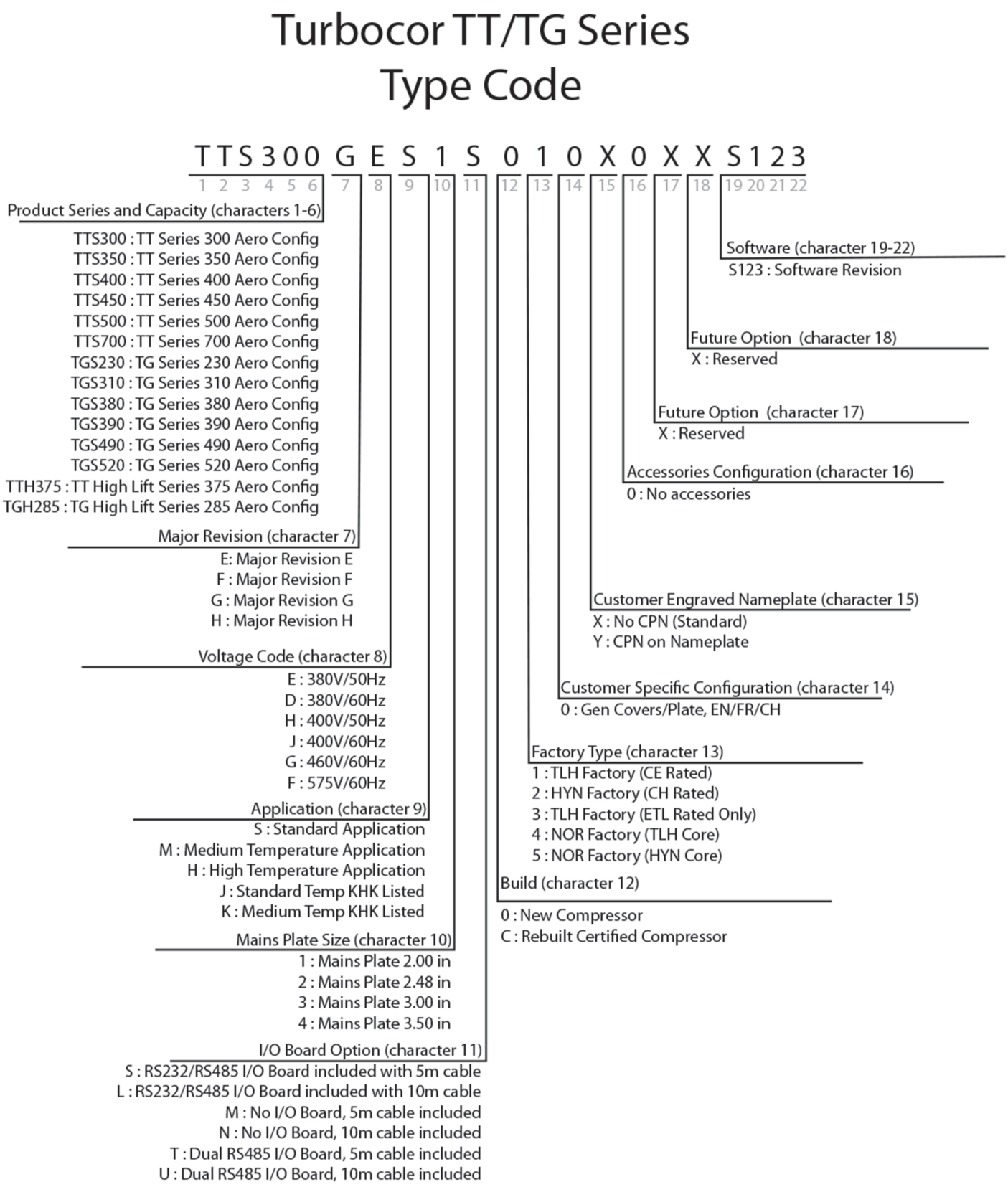
Customer Engraved Nameplate
X: No CPN (Standard)
Y: CPN on Nameplate

Accessories Configuration
0: No accessories

Future Option
X: Reserved
X: Reserved

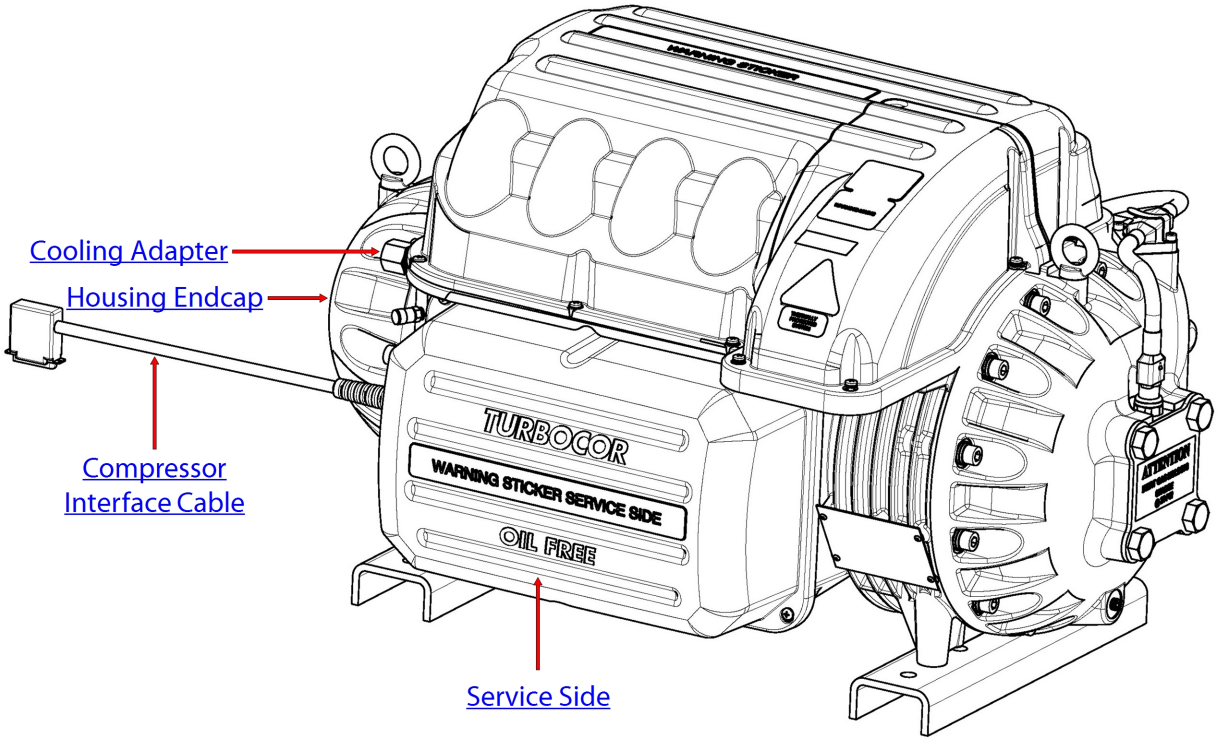
Software
S123: Software Revision

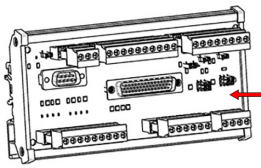
Figure 1-2 TT and TG Product Nomenclature After May 6, 2019



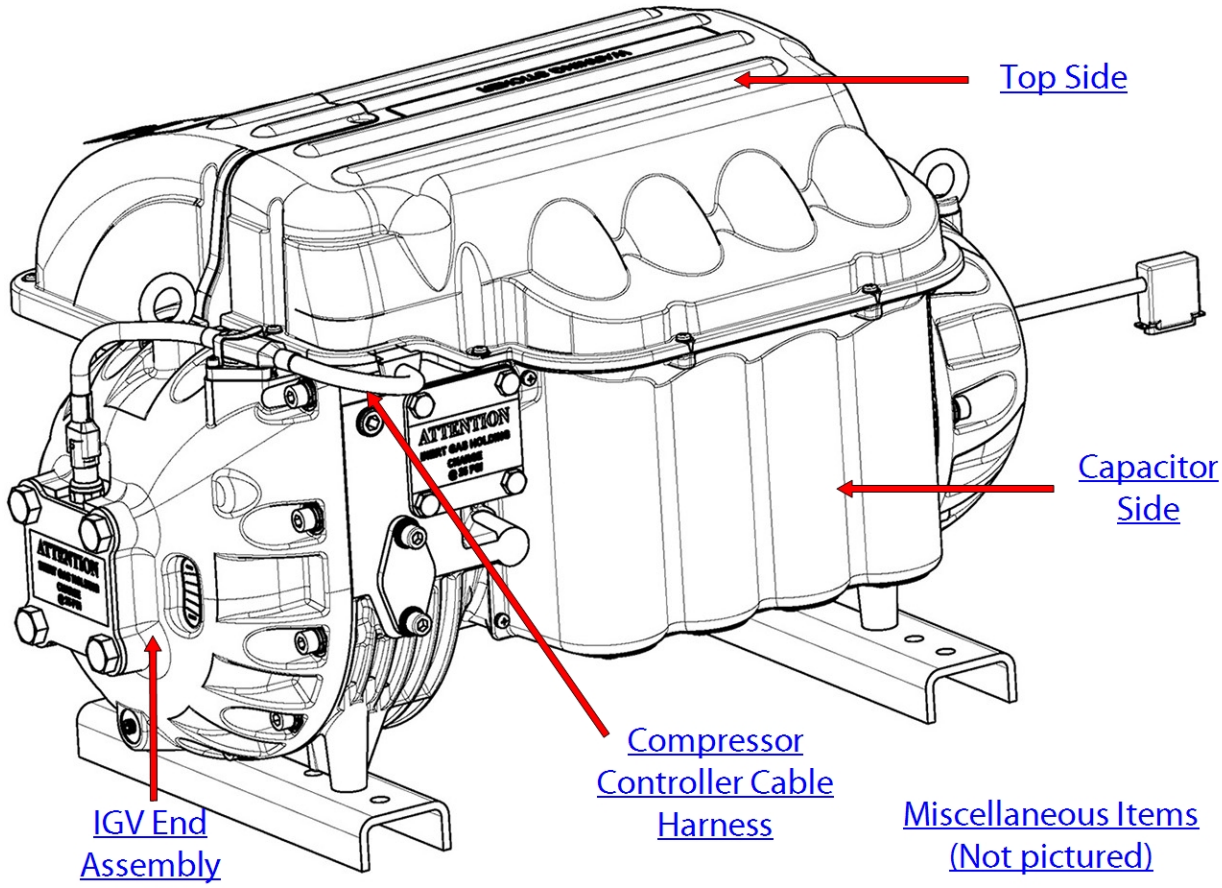
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TTS/TGS Model

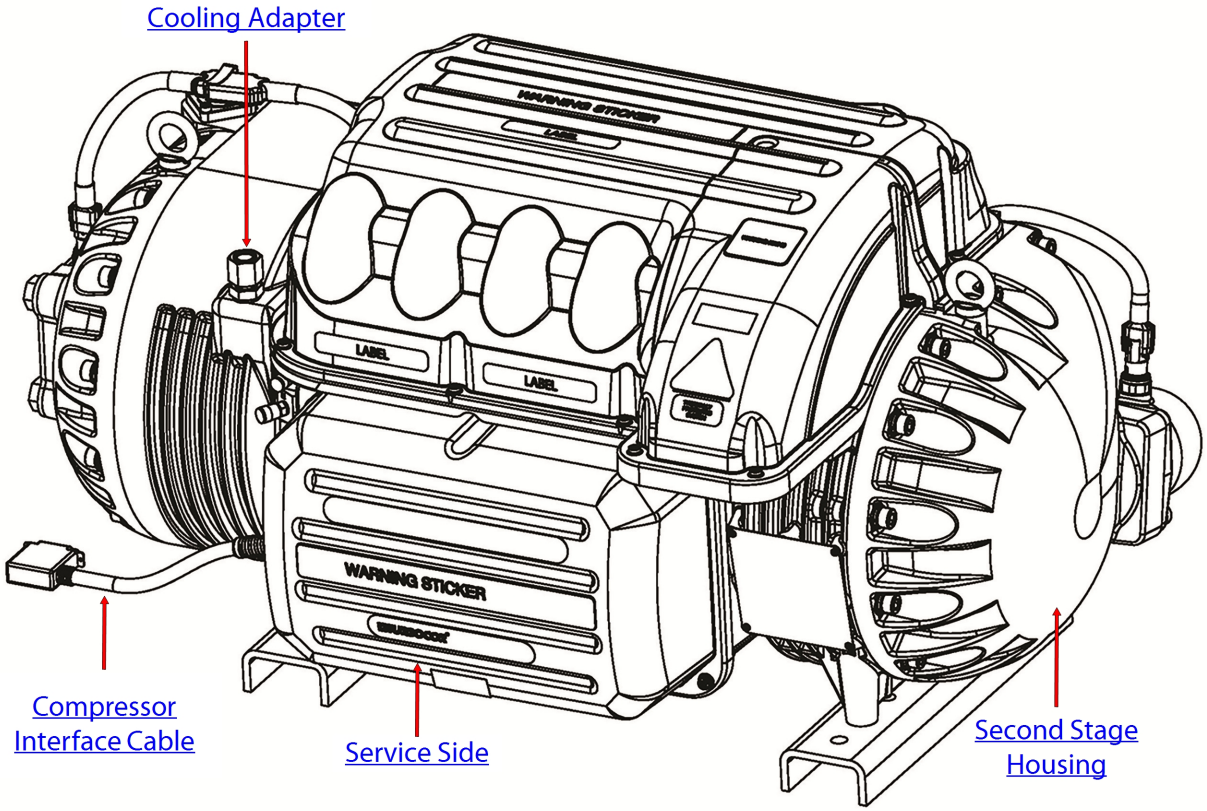




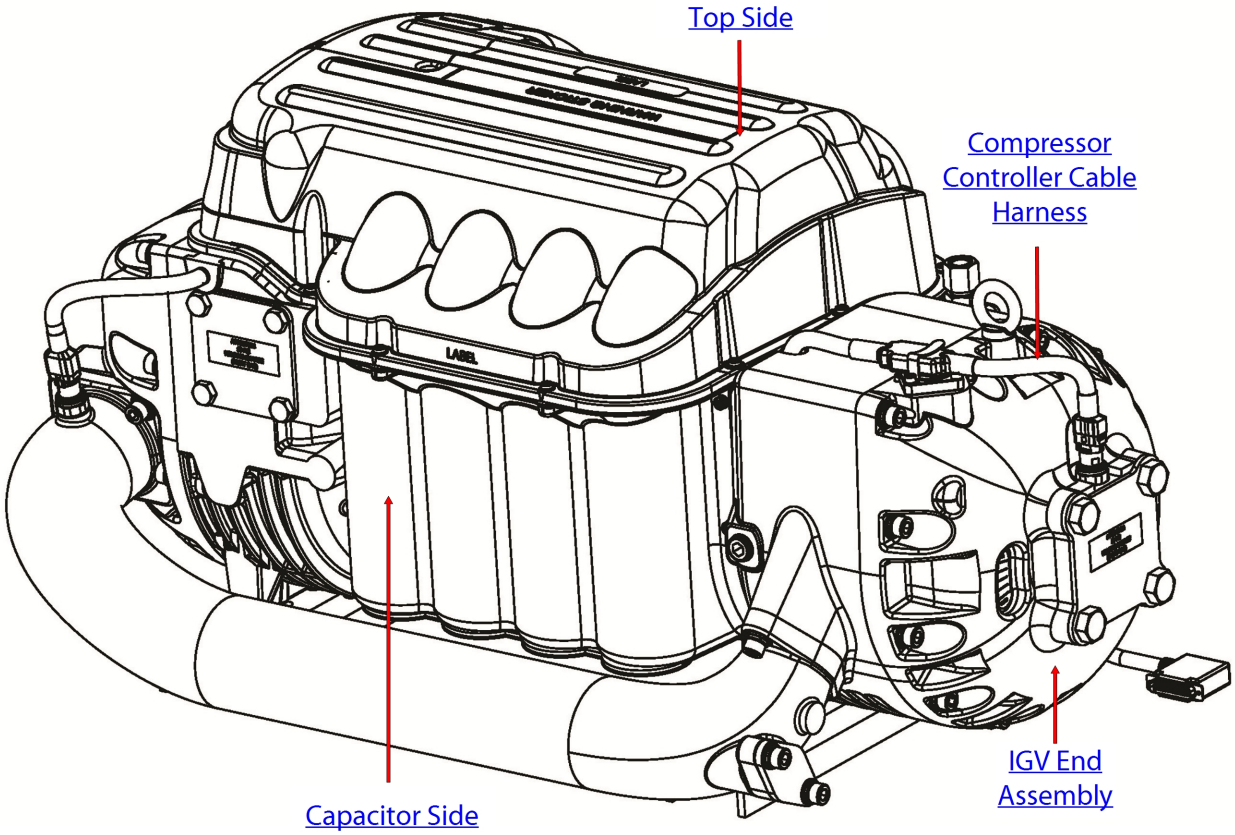
TTS/TGS Model



TTH/TGH Model



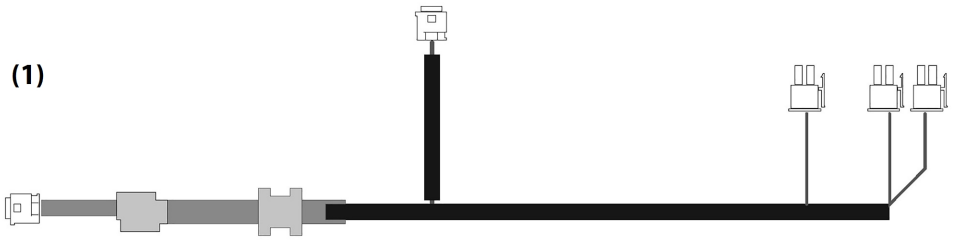
TTH/TGH Model



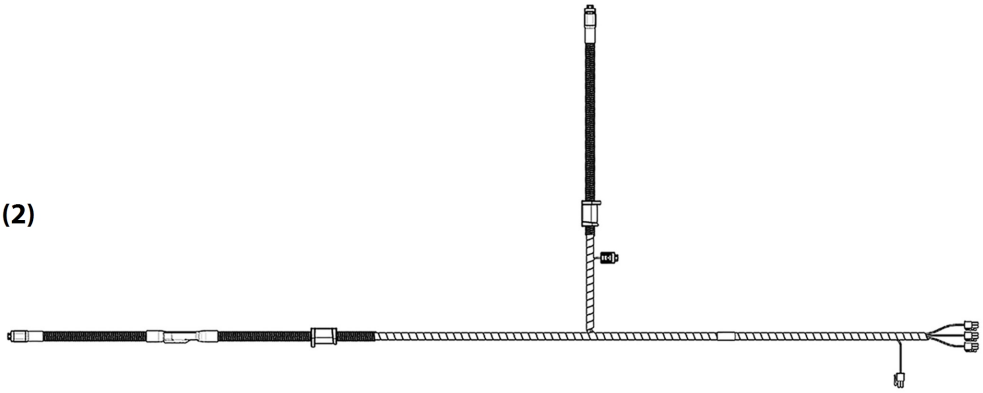
Miscellaneous Items (Not pictured)

2.1 Compressor Controller Cable Harness

(1)



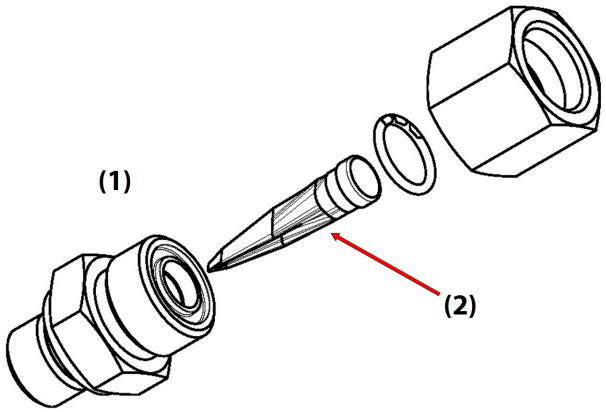
(2)



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) COMPRESSOR CONTROLLER CABLE HARNESS	100322-5	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Cable Only SCR Temperature Sensor connection is no longer available

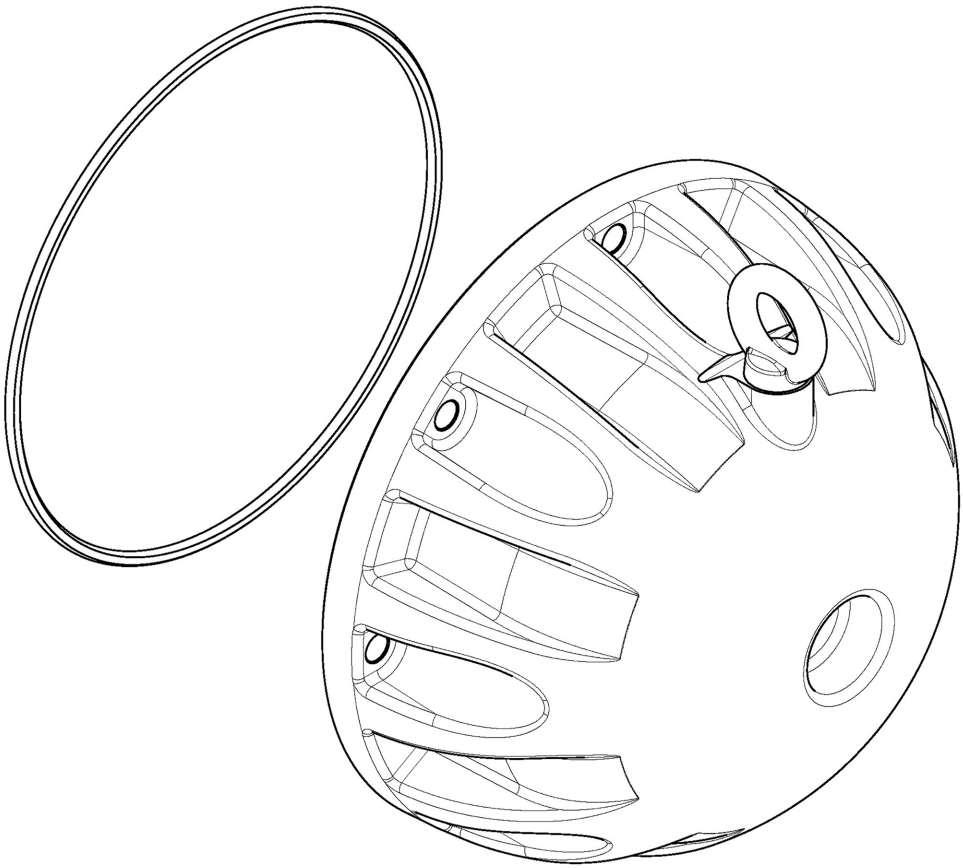
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(2) COMPRESSOR CONTROLLER CABLE HARNESS	100322-4	• TTH375/TGH285	-F, -H	Cable Only

2.2 Cooling Adapter



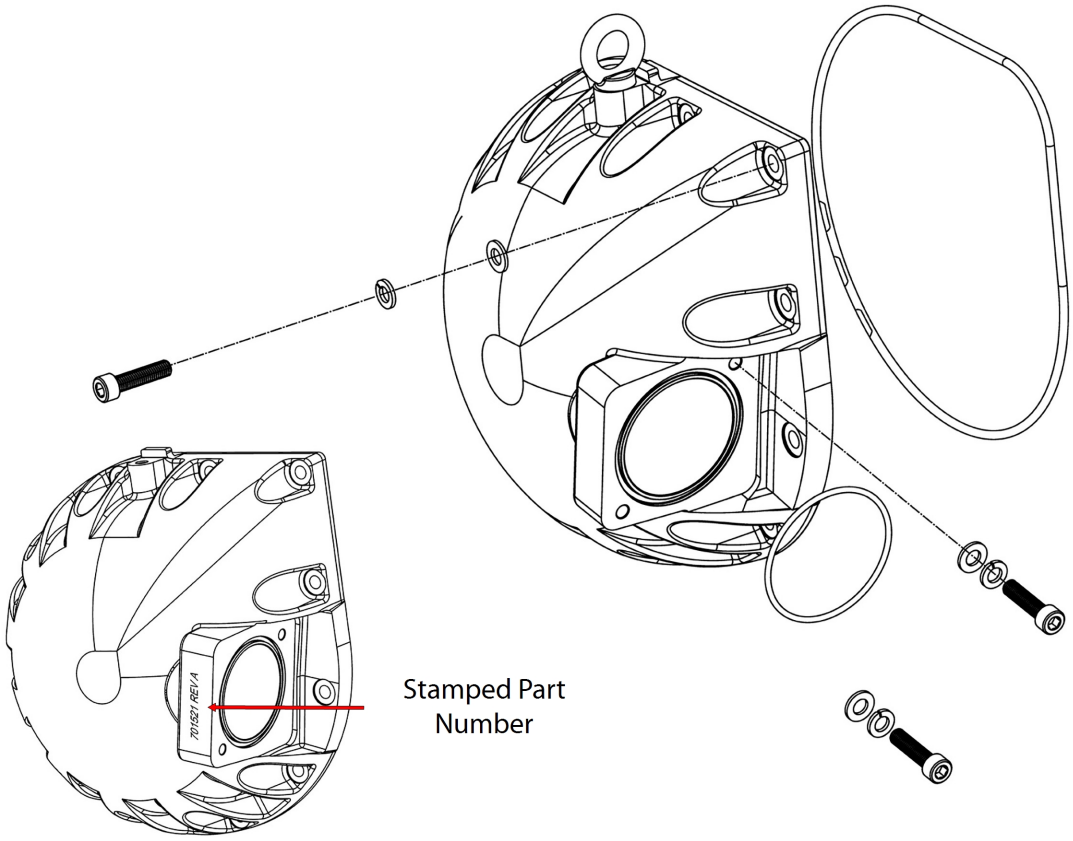
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) COOLING ADAPTER W/SCREEN	100169-1	ALL COMPRESSORS	-E, -F, -G, -H	Contains O-rings and strainer Use if compressor part number ends in “-3”
(2) STRAINER FOR COOLING ADAPTER	100186-1	ALL COMPRESSORS	-E, -F, -G, -H	Replaces strainer and one external O-ring

2.3 Housing End Cap



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
END CAP ASSY	100324-2	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Contains eyebolt, fasteners, and O-ring
O-RING, END CAP	100352	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Replaces Endcap fasteners and O-ring

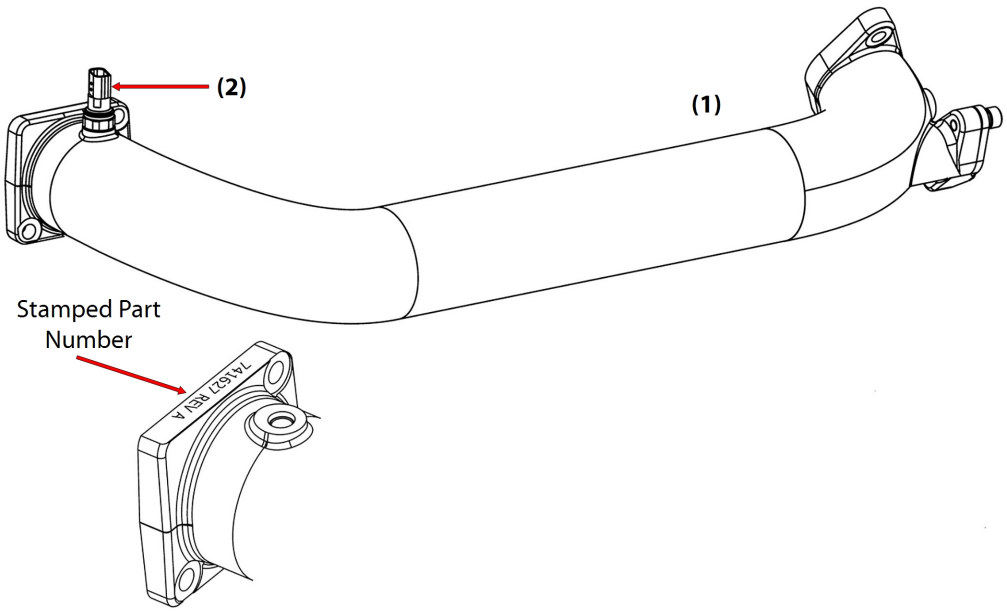
2.4 Second Stage Housing



It is important to determine the version of Second Stage Housing that is currently installed on the compressor in order to identify the correct part number. There are two variants of Second Stage Housing and Interstage pipe and they are not interchangeable. Refer to the stamped part number on the Second Stage Housing flange that mates to the Interstage Pipe. When replacing early revision Second Stage Housings, the Interstage Pipe will also need to be replaced.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SECOND STAGE HOUSING	100706-3	• TTS375/TGH285	-F, -H	For Second Stage Housing stamped part number 701521, also order kit 100703-3. For Second Stage Housing stamped part number 741630, no other kit is required. Contains eyebolt, O-rings, and mounting hardware.
O-RINGS, SECOND STAGE HOUSING	100706-2	• TTH375/TGH285	-F, -H	Contains O-rings and fasteners for Second Stage Housing, Interstage Pipe, and Economizer

2.5 Interstage Pipe



It is important to determine the version of Interstage Pipe that is currently installed on the compressor in order to identify the correct part number. There are two variants of Second Stage Housing and Interstage pipe and they are not interchangeable. Refer to the stamped part number on the Interstage Pipe flange that mates to the Second Stage Housing. When replacing early revision Interstage Pipes, the Second Stage Housing will also need to be replaced.

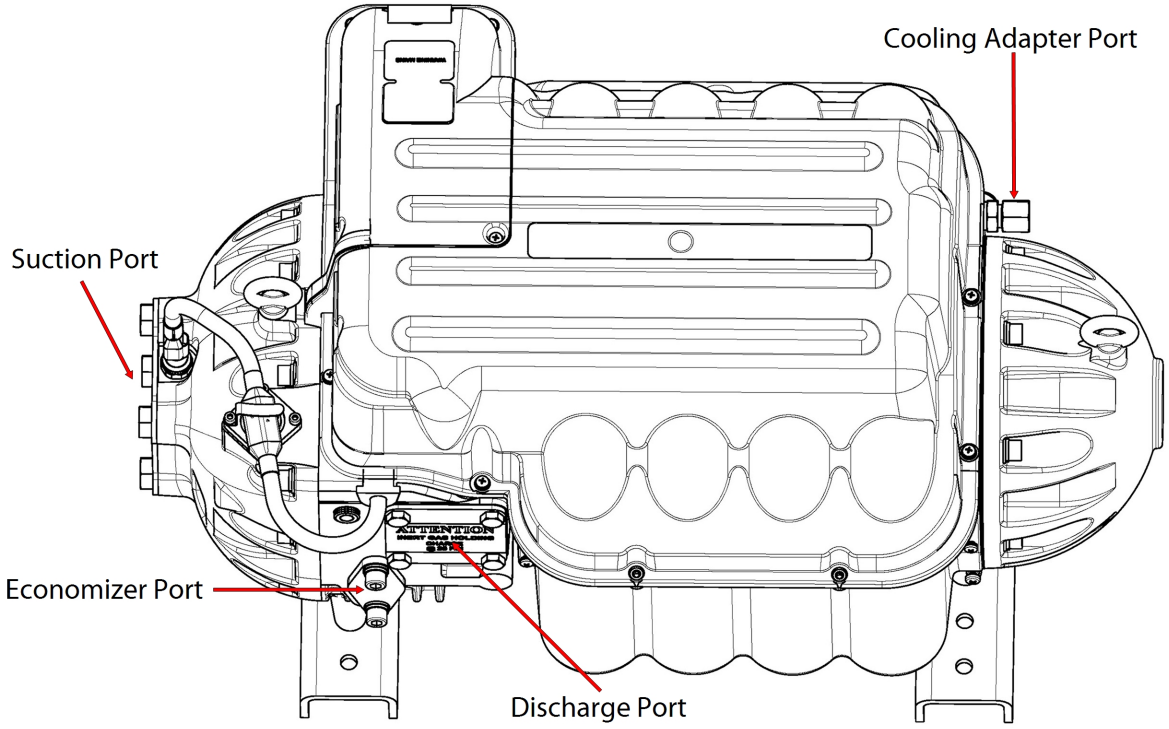
NOTE

If the part number on the Interstage Pipe is not visible, verify the Second Stage Housing part number. If the Second Stage Housing is part number, 701521, then kits **100703-3** and **100706-3** need to be purchased. If the Second Stage part number is 741630, then purchase kit **100703-3**.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) INTERSTAGE PIPE	100703-3	• TTH375/TGH285	-F, -H	For Interstage Pipe stamped part number 741627, also order kit 100706-3. For Interstage Pipe stamped part number 741629, no other kit is required. Contains P/T Sensor, O-rings, and fasteners
(2) PRESSURE/TEMP SENSOR, DISCHARGE	100037-2	• TTH375/TGH285	-F, -H	Marked with a red spot and a green spot, contains O-ring
O-RINGS, INTERSTAGE PIPE	100703-2	• TTH375/TGH285	-F, -H	Contains O-rings for the Interstage Pipe and Economizer (includes fasteners)
O-RING, P/T SENSORS	199K0015	ALL COMPRESSORS	ALL	Includes four O-rings

2.6 Miscellaneous Items

Port O-rings



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
O-RINGS, PORT CONNECTIONS	100329	ALL COMPRESSORS	ALL	Includes O-rings for Cooling Adapter, Suction, Discharge, and Economizer ports

Miscellaneous Items

Dielectric Grease



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
DIELECTRIC GREASE, 1.25 FL OZ	901982	ALL COMPRESSORS	ALL	1.25 fl. oz. tube of Grease Only

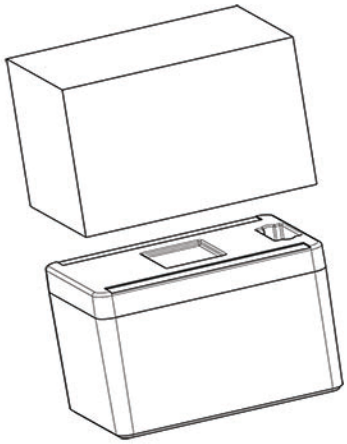
Refrigerant Labels

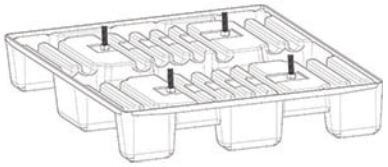




DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
R134a-R513A LABELS	199K0002	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TTH375	-F, -G, -H	Includes one pair
HFO-R1234ze-R515B LABELS	199K0003	• TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TGH285	-F, -G, -H	Includes one pair

Compressor Packaging

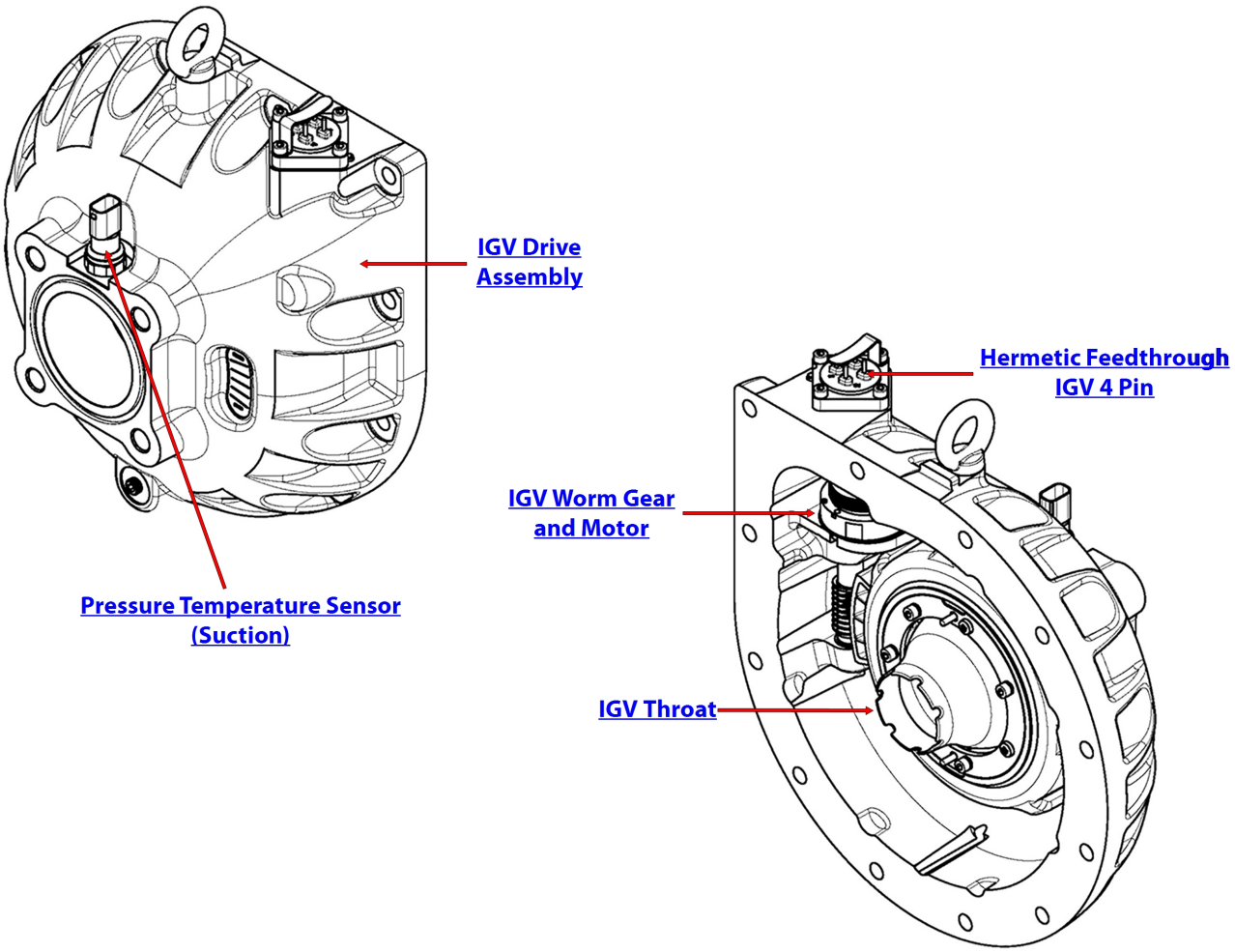




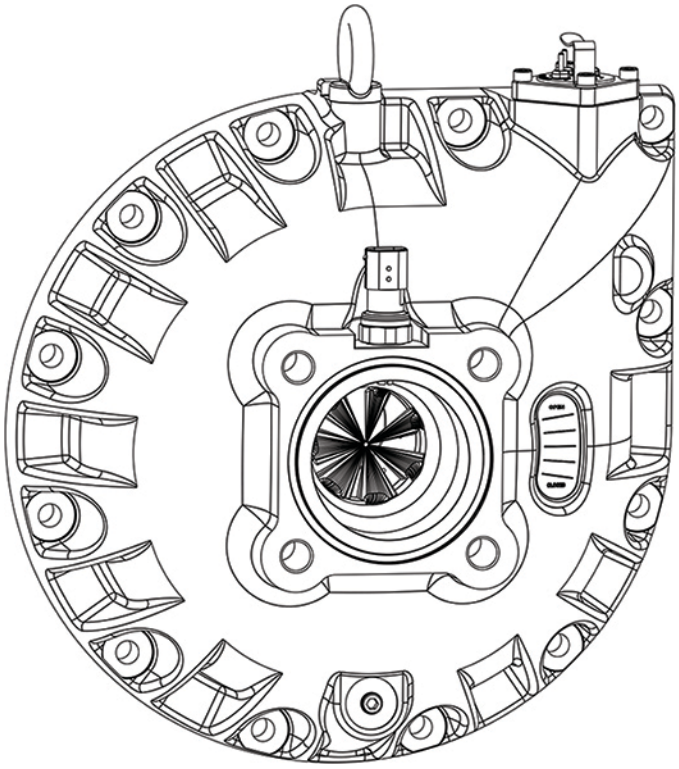
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
TTS COMPRESSOR PACKAGING	199K0000	ALL TTS COMPRESSORS	ALL	Includes box, foam, pallet, and fasteners
TTH-TGH COMPRESSOR PACKAGING	199K0001	ALL TTH & TGH COMPRESSORS	ALL	Includes box, foam, pallet, and fasteners

Chapter 3.0 IGV End Assembly

The spare part kits available for the Inlet Guide Vanes (IGV) Drive assembly are detailed in this section. The IGV Drive Assembly and O-ring kits detailed on the following page replace the entire IGV assembly, including feedthrough, sensor, housing, throat, and motor.



3.1 IGV Drive Assembly

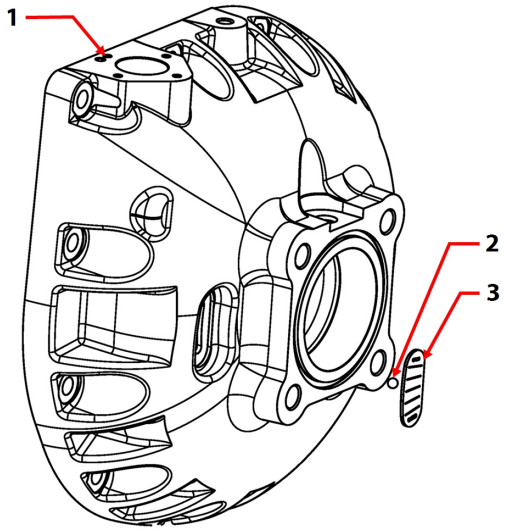


DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
IGV DRIVE ASSY, BLACK THROAT	100050-16	• TTS300 • TGS230	-P, -C, -D, -E, -F, -G, -H	Fully assembled IGV with black IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, BLUE THROAT	100050-15	• TTS350 • TGS310	-A, -E, -F, -H	Fully assembled IGV with blue IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, SILVER THROAT	100050-26	• TTS450 • TGS380	-H	Fully assembled IGV with silver IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, GOLD THROAT	100050-17	• TTS400 • TGS390	-C, -E, -F, -H	Fully assembled IGV with gold IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, SILVER THROAT	100050-25	• TGS490	-F, -H	Fully assembled IGV with silver IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, STEEL THROAT	100050-18	• TTS500/TTS700 • TGS520	-A, -E, -F, -H	Fully assembled IGV with steel IGV throat, includes O-rings and fasteners
IGV DRIVE ASSY, ORANGE THROAT	100050-19	• TTH375 • TGH285	-F, -H	Fully assembled IGV with orange IGV throat, includes O-rings and fasteners

3.2 IGV Housing Components

The IGV Housing kits detailed here replace the IGV housing. The plug and indicator ball are pre-installed.

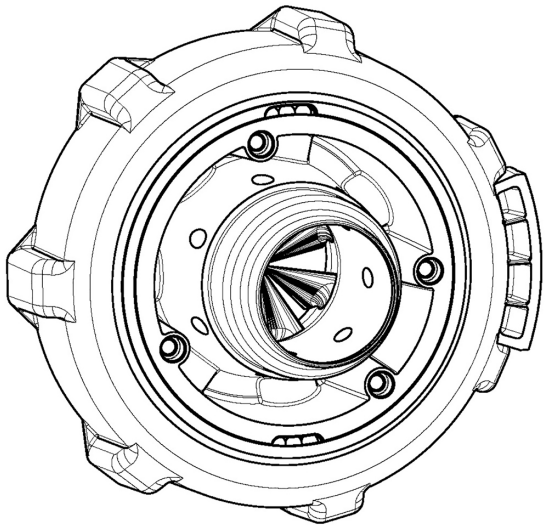
NOTE
The Worm Gear Extractor Tool (100246) is required for the installation of the Worm Gear.



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) IGV HOUSING	100223	• TTS300/ TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390	All	Contains Housing, O-rings, and fasteners Does not include mechanical components
(1) IGV HOUSING	100229	• TTS500/TTS700 • TGS520/TGS490	All	Contains Housing, O-rings, and fasteners Does not include mechanical components
(1) IGV HOUSING	100223-5	• TTH375/TGH285	All	Contains Housing, O-rings, and fasteners Does not include mechanical components
O-RING, IGV ASSY	100051-1	• TTS300/TTS350/TTS400/TTS450/TTS500/ TTS700 • TGS230/TGS310/TGS380/TGS390/ TGS490/TGS520 • TTH375/TGH285	All	Includes O-rings for Suction, IGV Housing and IGV motor Feedthrough
(2) & (3) IGV BALL AND GLASS	100137	• TTS300/TTS350/TTS400/TTS450/TTS500/ TTS700 • TGS230/TGS310/TGS380/TGS390/ TGS490/TGS520	ALL	Includes IGV Ball and Glass
(2) & (3) IGV BALL AND GLASS	100138	• TTH375/TGH285	ALL	Includes IGV Ball and Glass

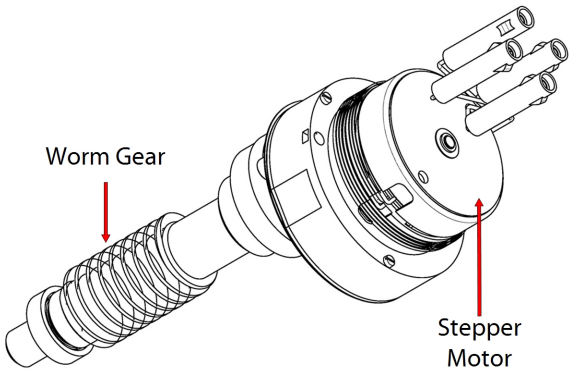
3.3 IGV Throat

The IGV Throat kits detailed here replace the IGV Throat assembly.



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
IGV THROAT, BLACK	100227	• TTS300 • TGS230	-P, -C, -D, -E, -F, -G, -H	Contains IGV throat assembly-black, thin rim, O-rings and fasteners
IGV THROAT, BLUE	100228	• TTS350 • TGS310	-A, -E, -F, -H	Contains IGV throat assembly-blue, O-rings and fasteners
IGV THROAT, SILVER	100392	• TTS450 • TGS380	-H	Contains IGV throat assembly-silver, O-rings and fasteners
IGV THROAT, GOLD	100231	• TTS400 • TGS390	-C, -E, -F, -H	Contains IGV throat assembly-gold, O-rings and fasteners
IGV THROAT, STEEL	100232	• TTS500/TTS700 • TGS520	-A, -E, -F, -H	Contains IGV throat assembly-steel, O-rings and fasteners
IGV THROAT, SILVER	100261	• TGS490	-F, -H	Contains IGV throat assembly-silver, O-rings and fasteners
IGV THROAT, ORANGE	100704	• TTH375 • TGH285	-F, -H	Contains IGV throat assembly-orange, O-rings and fasteners

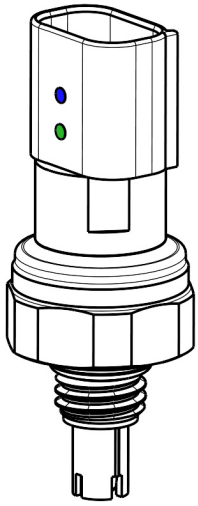
3.4 IGV Worm Gear and Motor



NOTE
The Worm Gear Extractor Tool (100246) is required for removal and installation of the Worm Gear.

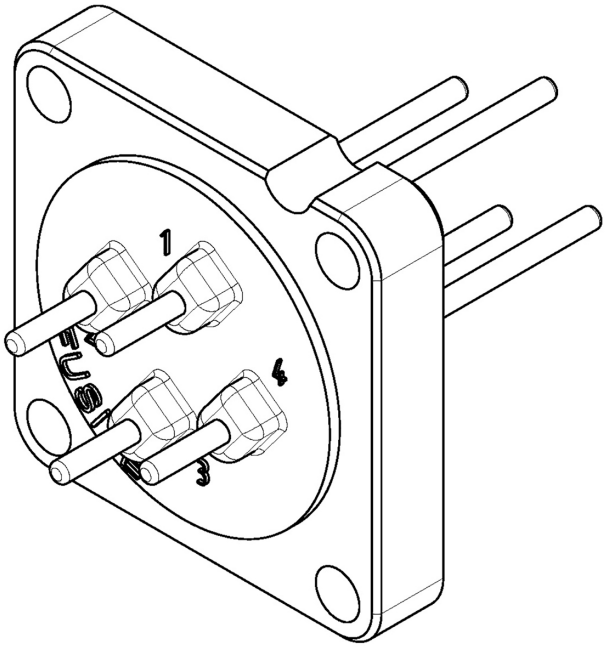
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
IGV WORM GEAR SHAFT REPAIR	100222	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Contains Worm Gear, Stepper Motor, Bearings, Collars, Clips, O-rings, and fasteners
IGV WORM GEAR SHAFT REPAIR	100705	• TTH375/TGH285	ALL	Contains Worm Gear, Stepper Motor, Bearings, Collars, Clips, O-rings, and fasteners
IGV MOTOR	100035-1	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	ALL	Includes Stepper Motor and O-rings
IGV MOTOR	100035-2	• TTH375/TGH285	ALL	Includes Stepper Motor, O-rings, and fasteners
O-RING, IGV ASSY	100051-1	ALL COMPRESSORS	ALL	Includes O-rings
WORM GEAR EXTRACTOR TOOL	100246	ALL COMPRESSORS	ALL	Worm Gear Extractor tool only

3.5 Pressure Temperature Sensor Suction



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
PRESSURE/TEMP SENSOR, SUCTION	100036-1	ALL COMPRESSORS	ALL	Marked with a blue dot and a green dot, includes O-ring
O-RING, P/T SENSORS	199K0015	ALL COMPRESSORS	ALL	Includes four O-rings

3.6 Hermetic Feedthrough IGV 4 Pin

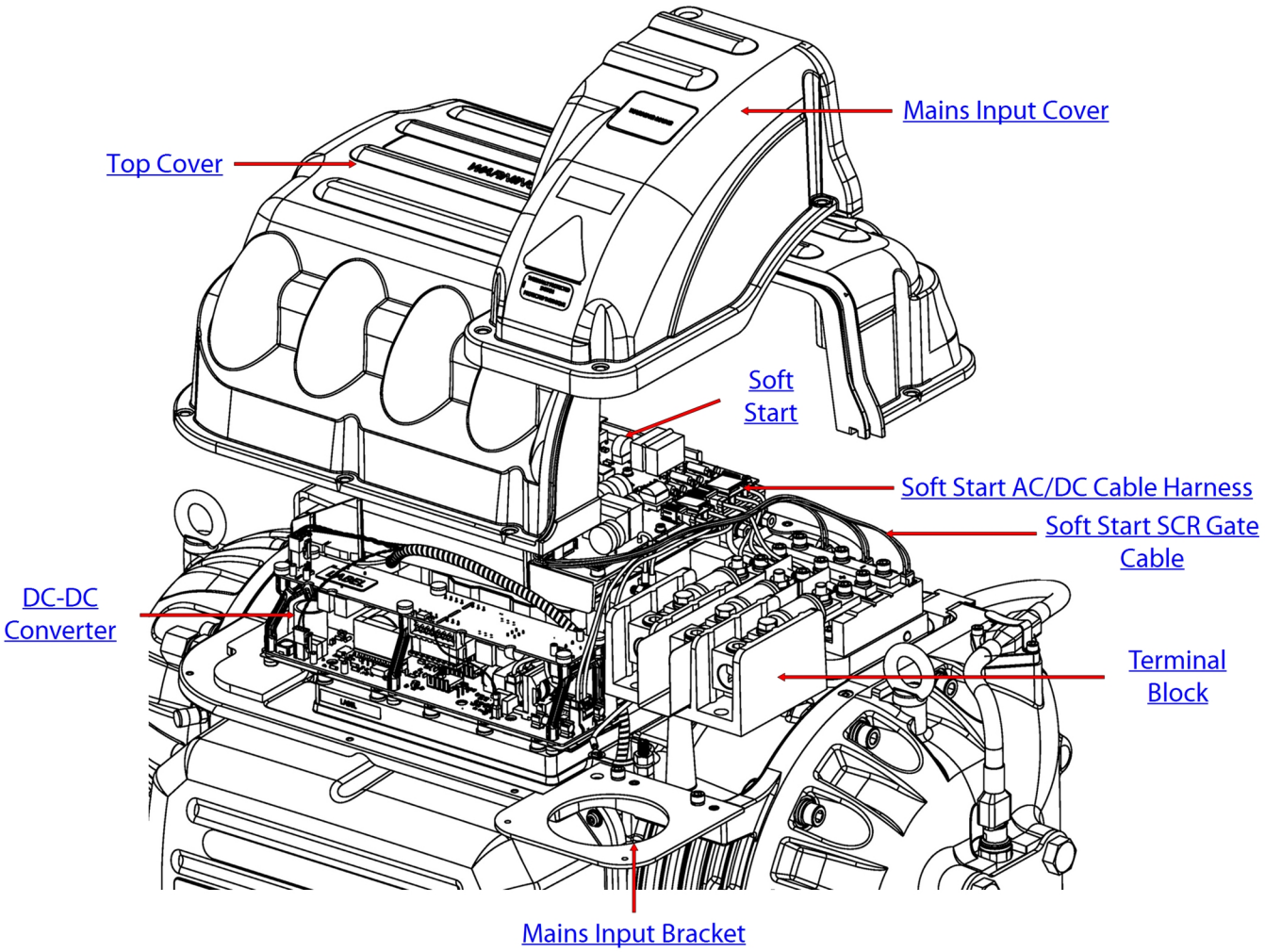


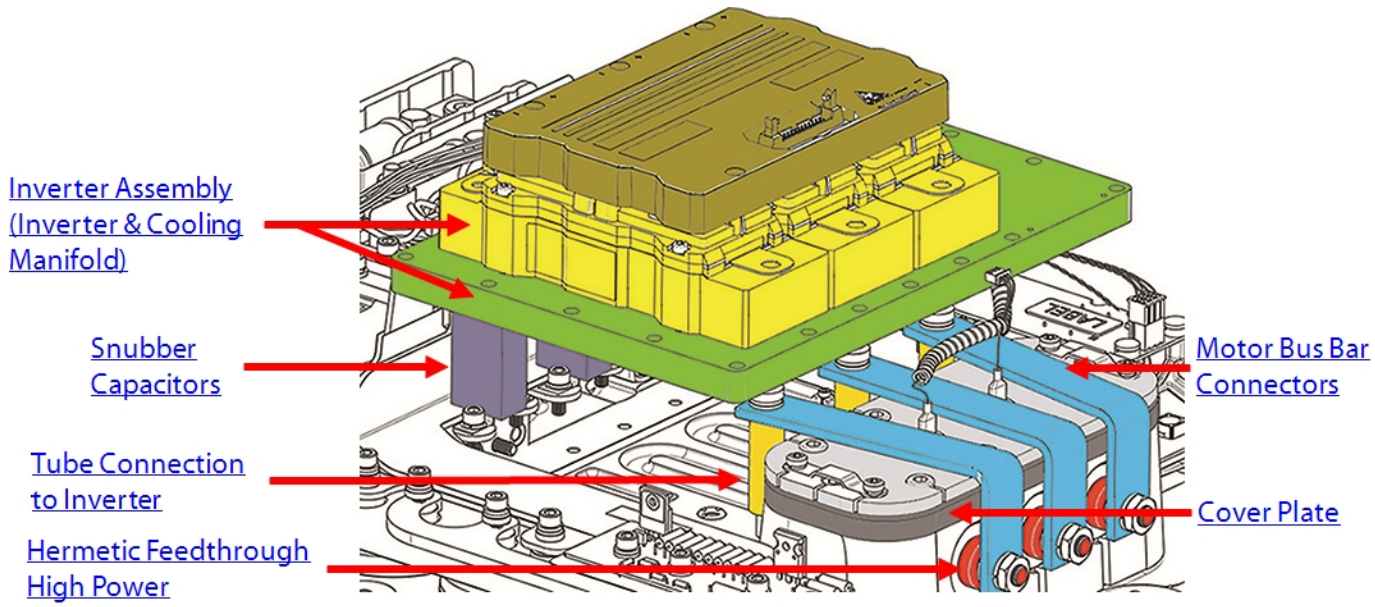
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
4 PIN IGV FEEDTHROUGH	100321-1	ALL COMPRESSORS	ALL	Includes O-ring, clamp, and fasteners

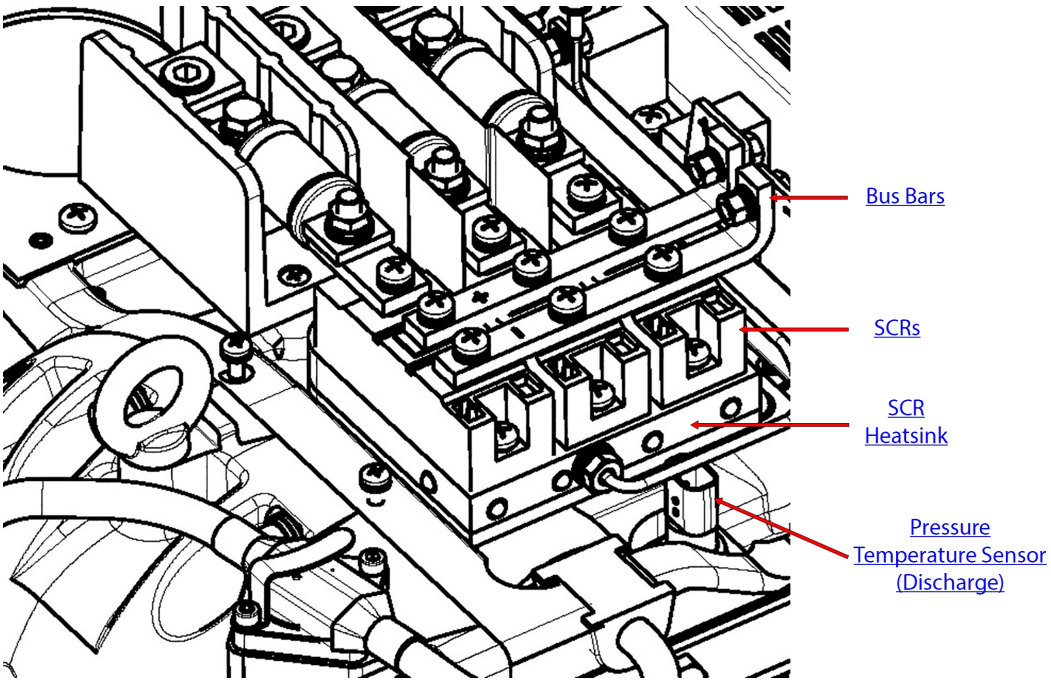
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Chapter 4.0 Top Side

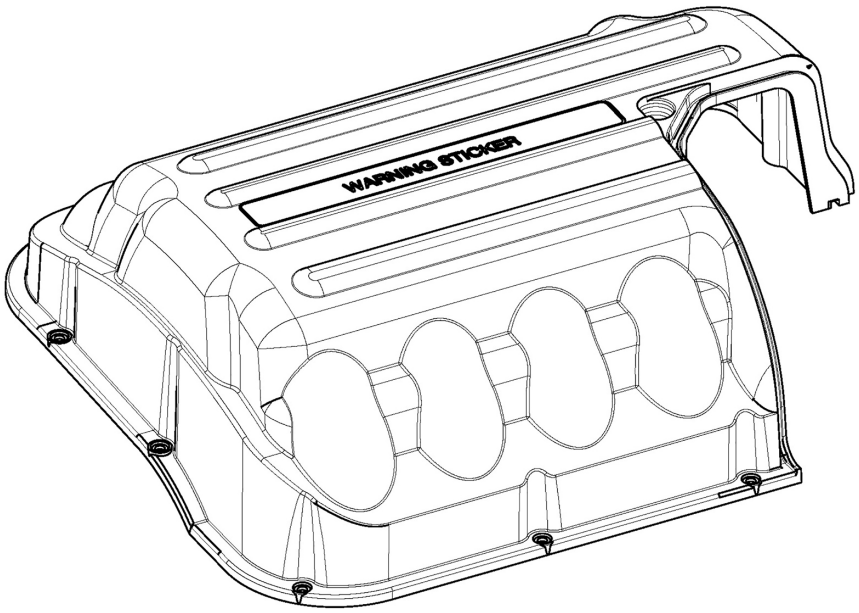
This section details the spare part kits available for components underneath the Top Side and Mains Input covers.




Inverter Assembly (Inverter & Cooling Manifold)
Snubber Capacitors
Tube Connection to Inverter
Hermetic Feedthrough High Power
Motor Bus Bar Connectors
Cover Plate

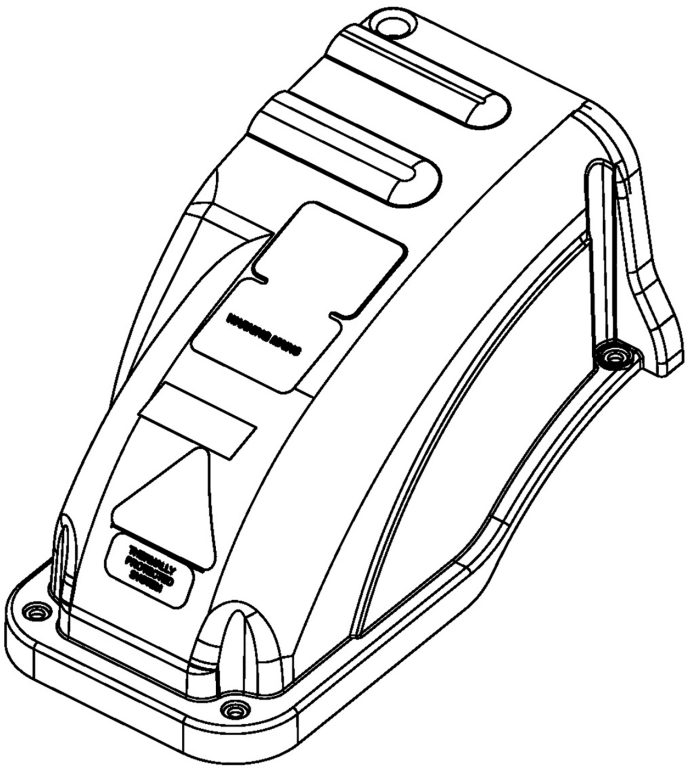

Bus Bars
SCRs
SCR Heatsink
Pressure Temperature Sensor (Discharge)

4.1 Top Cover



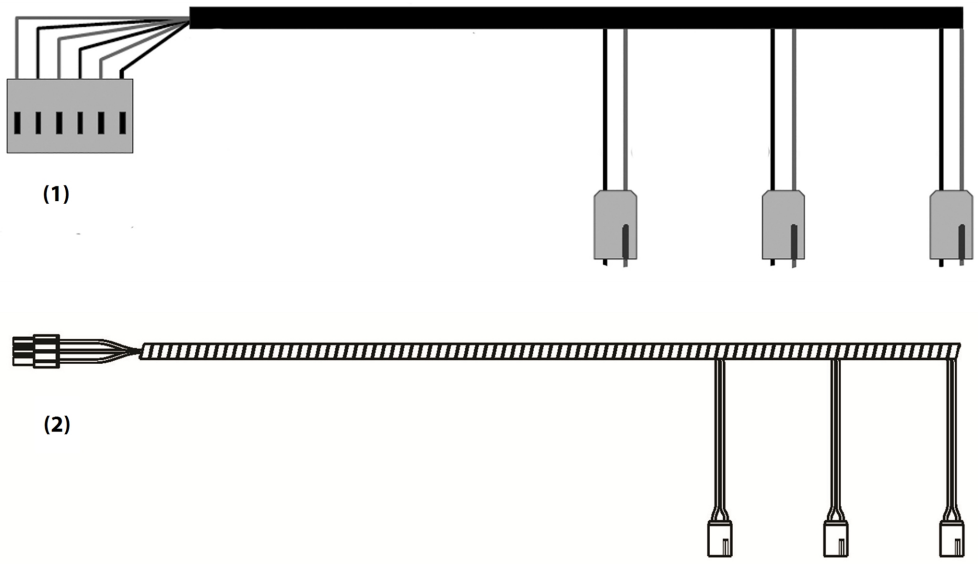
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
TOP COVER, BLACK, EN/FR	100054-3	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TTH375	ALL	Includes fasteners
TOP COVER, GREEN, EN/FR	100054-6	• TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TGH285	ALL	Includes fasteners
COVERS SCREW, M5, STAINLESS	100252	ALL COMPRESSORS	ALL	Replaces fasteners for all four covers (24 fasteners)

4.2 Mains Input Cover



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
MAINS INPUT COVER, BLACK	100056-3	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TTH375	ALL	Includes fasteners
MAINS INPUT COVER, GREEN	100056-6	• TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TGH285	ALL	Includes fasteners
COVERS SCREW, M5, STAINLESS	100252	ALL COMPRESSORS	ALL	Replaces fasteners for all four covers (24 fasteners)

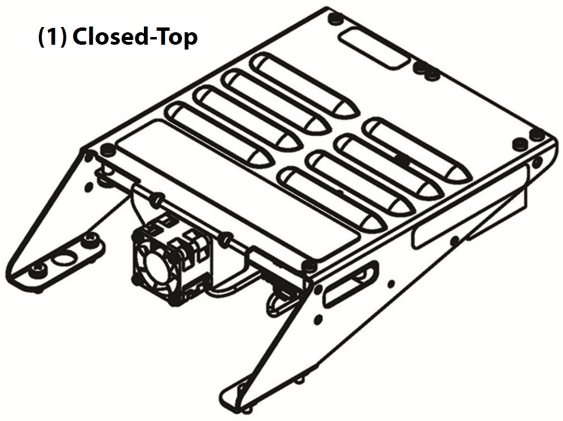
4.3 Soft Start SCR Gate Cable



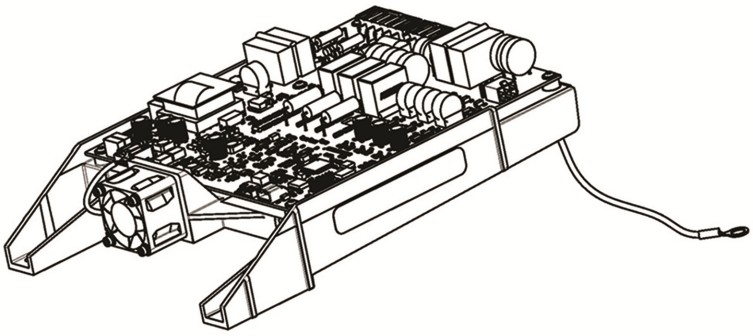
It is important to determine the Soft Start that is currently installed on the compressor. Pre Rev H compressors may contain a Soft Start that has been upgraded to the Open-Top style. The two (2) different style Soft Starts utilize a different SCR Cable connector, which requires a unique Soft Start SCR Gate Cable.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) CABLE, SOFTSTART SCR GATE	100059	ALL COMPRESSORS	-N, -P, -C, -D, -E, -F, -G	Closed-Top Soft Starts (1) Includes cable only
(2) CABLE, SOFTSTART SCR GATE	100059-1	ALL COMPRESSORS	-H	Open-Top Soft Start (2) Includes cable only

(1) Closed-Top

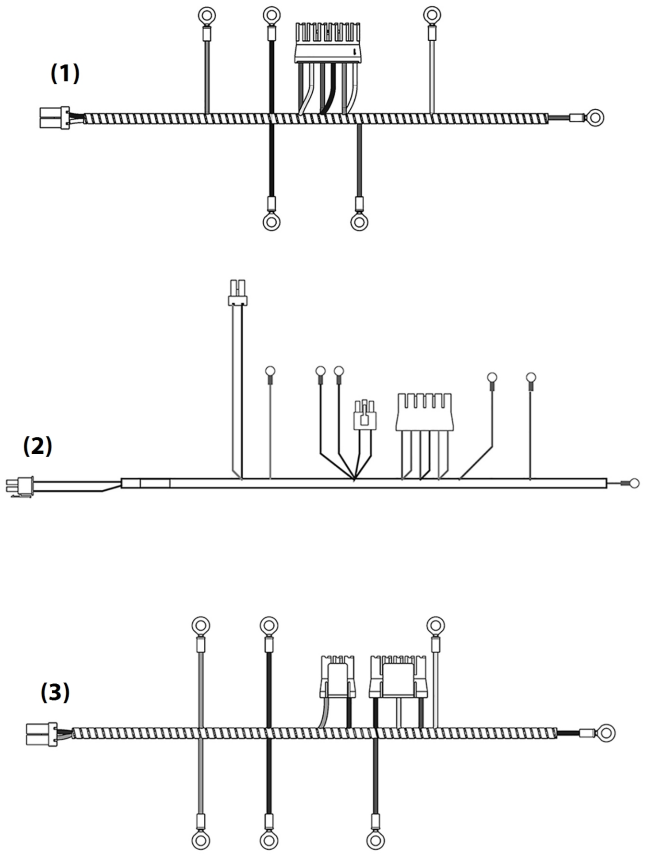


(2) Open-Top



*The Open-Top style Soft Starts require a different Soft Start SCR Cable.

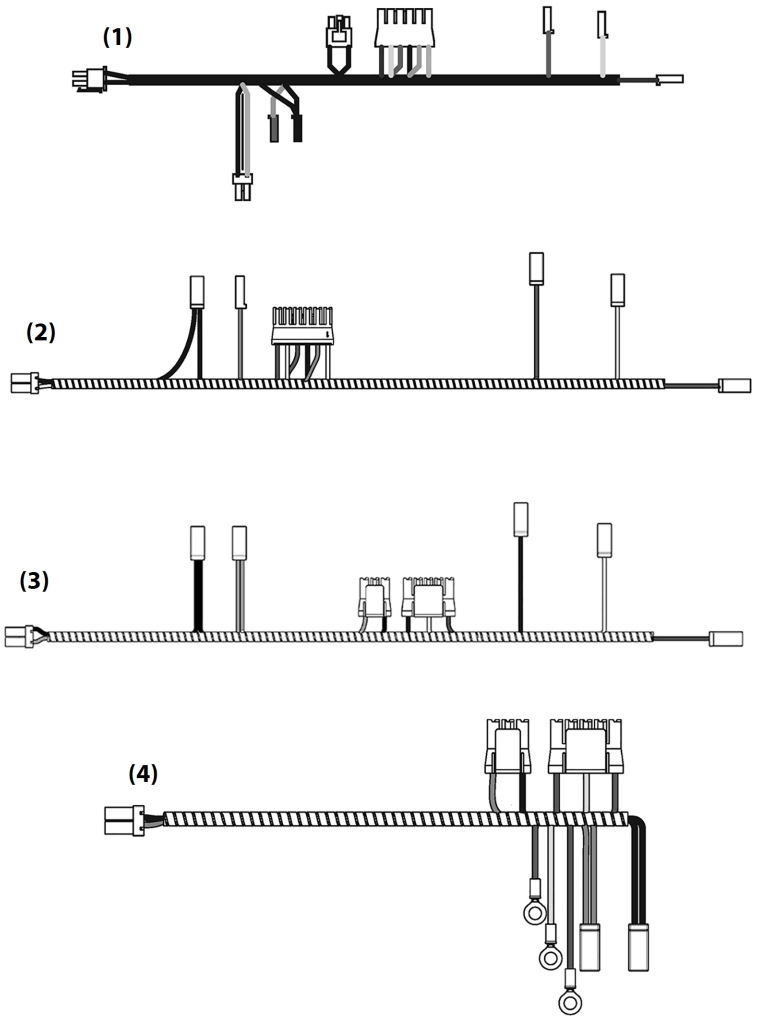
4.4 Cable Harness Soft Start AC/DC



It is important to determine the Soft Start that is currently installed on the compressor, as well as the DC-DC Converter and Bus Bar assembly. Pre-rev H compressors may contain a Soft Start that has been upgraded to the Open-Top style and a DC-DC Converter that has been upgraded to the Open-Frame style. Each of these items will impact the required kit. Refer to the Comment section in the tables below to determine the appropriate kit for the existing compressor. Also, refer to the Soft Start section in this manual if you need assistance to identify the visual difference between the two (2) types of Soft Starts.

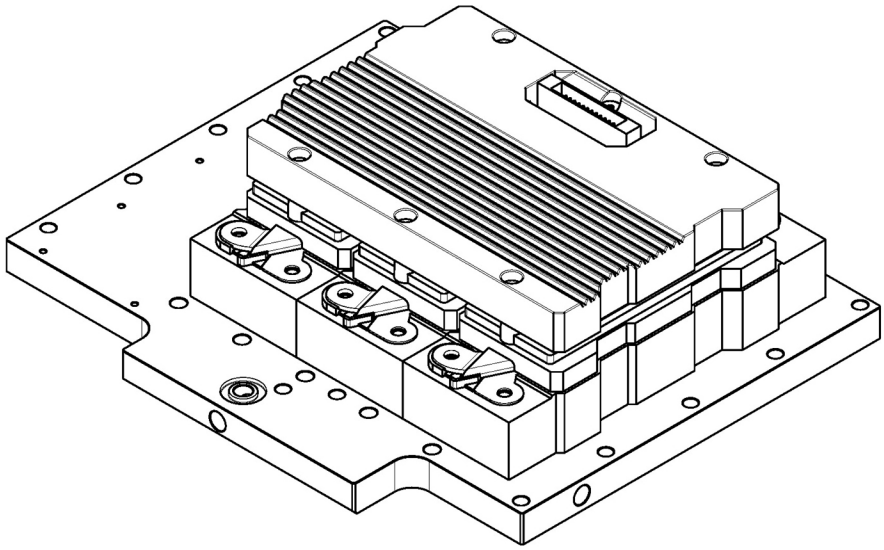
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1 & 2) CABLE, SOFTSTART AC/DC	100380	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F, -G	Cable Only Includes two cables in order to accommodate either DC-DC style
(3) CABLE, SOFTSTART AC/DC	100380-1	• TTS300 • TGS230	-H	Cable Only Rev. G compressors can use this cable if they have the Open Frame DC-DC and the Open-Top Soft Start installed

Cable Harness Soft Start AC/DC (continued)



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1 & 2) CABLE, SOFTSTART AC/DC	100381	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F	Cable Only Includes two cables in order to accommodate either DC-DC style)
(3) CABLE, SOFTSTART AC/DC	100381-2	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F	Cable Only For use with Soft Start (open-top style), Open Frame DC-DC, and Curved Bus Bars
(4) CABLE, SOFTSTART AC/DC	100381-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	Cable Only For use with Soft Start (open-top style), Open- Frame DC-DC, small SCRs, and Straight Bus Bars

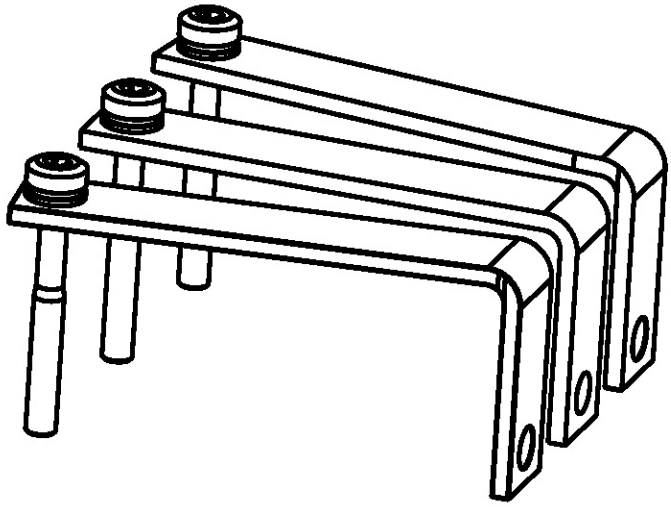
4.5 Inverter



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
INVERTER ASSEMBLY CONVERSION (342 to 613)	100521*	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F	Includes motor bus bars, manifold insulator, fasteners, washers, and O-rings
INVERTER ASSEMBLY, 613	100043-13*	• TTS300 • TGS230	-G, -H	Includes fasteners, washers, and O-rings
INVERTER ASSEMBLY, 613	100043-11	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F, -H	Includes fasteners, washers, and O-rings
O-RINGS, INVERTER ASSY	100310-2	• TTS300 • TGS230	ALL	Includes Inverter O-rings and fasteners
O-RING, INVERTER ASSY	100310-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	ALL	Replaces Inverter O-rings and fasteners

*Refer to Customer Notification (B-CN-079)

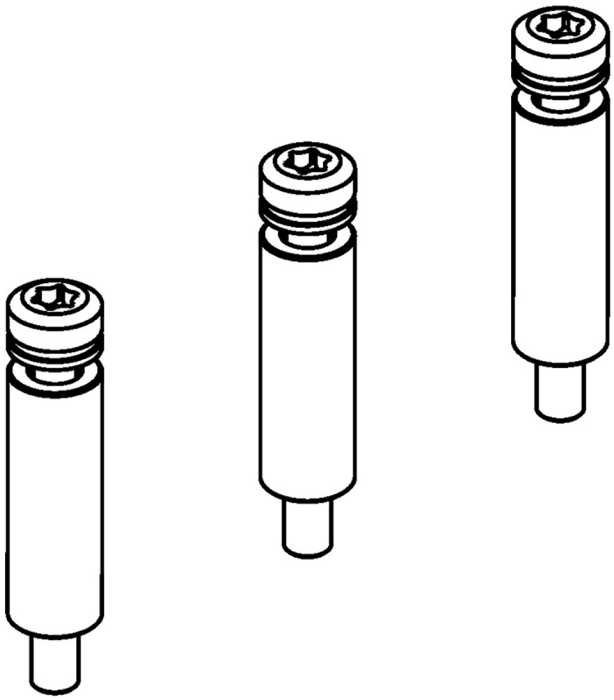
4.6 Motor Bus Bar Assembly Connectors



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
MOTOR BUS BAR ASSY	100313	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F	Includes three bus bars and fasteners
MOTOR BUS BAR ASSY	100313-1	• TTS300*/TTS350/TTS400/TTS450/TTS500/ TTS700 • TGS230*/TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F, G, -H	Includes three bus bars and fasteners

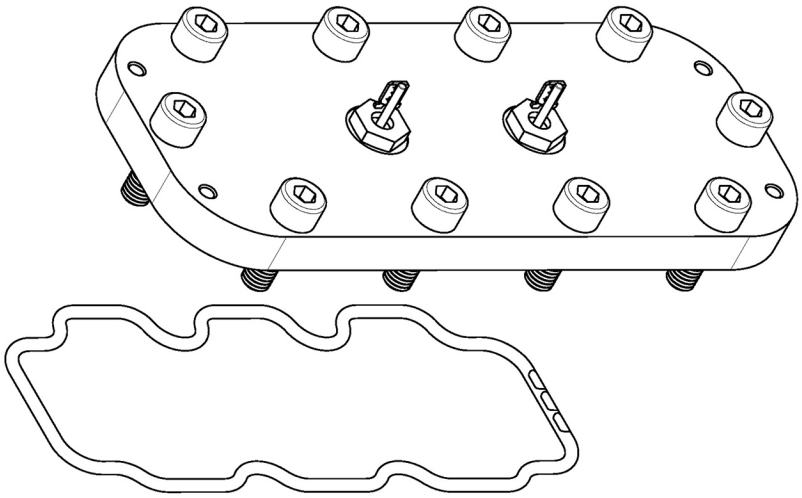
*Refer to Customer Notification (B-CN-079-EN) - This kit is for TTS300/TGS230 Rev. G and later compressors or when Conversion Kit (100521) has already been applied

4.7 Tube Connection to Inverter



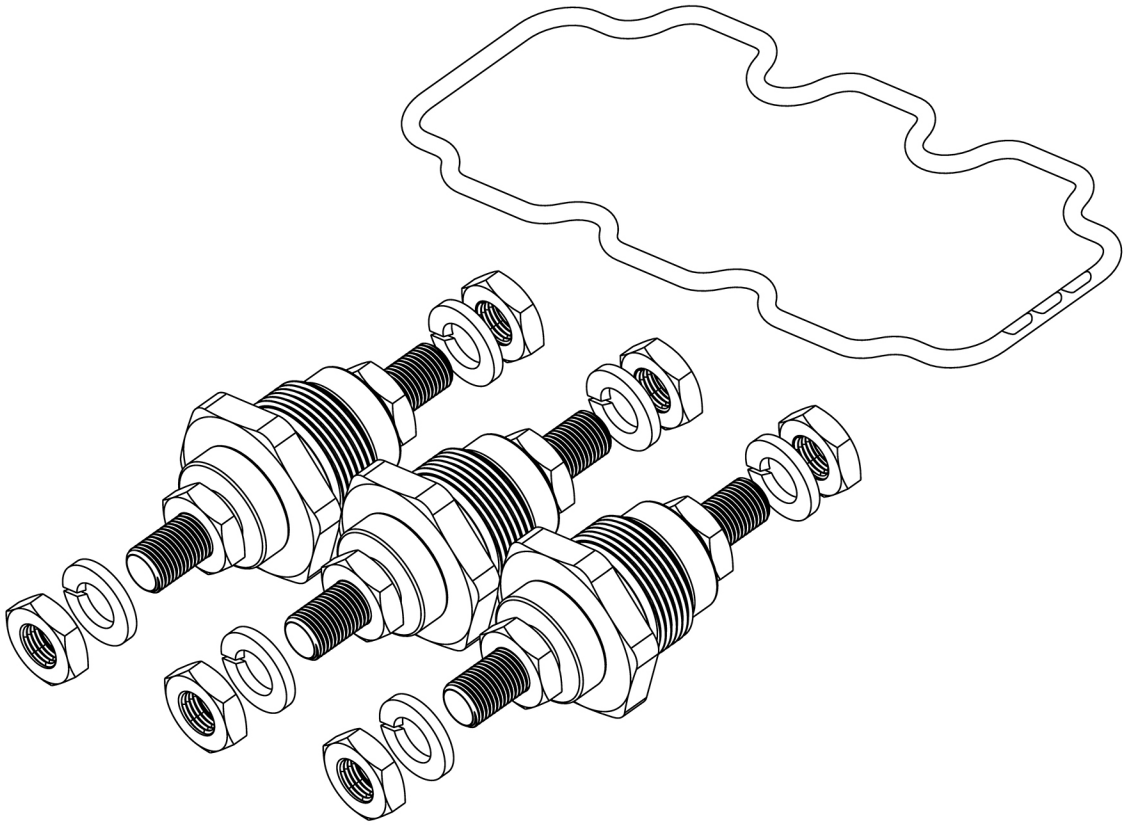
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
TUBE CONNECTION TO INVERTER	100311	ALL COMPRESSORS	ALL	Includes three tubes and fasteners

4.8 Cover Plate Assembly



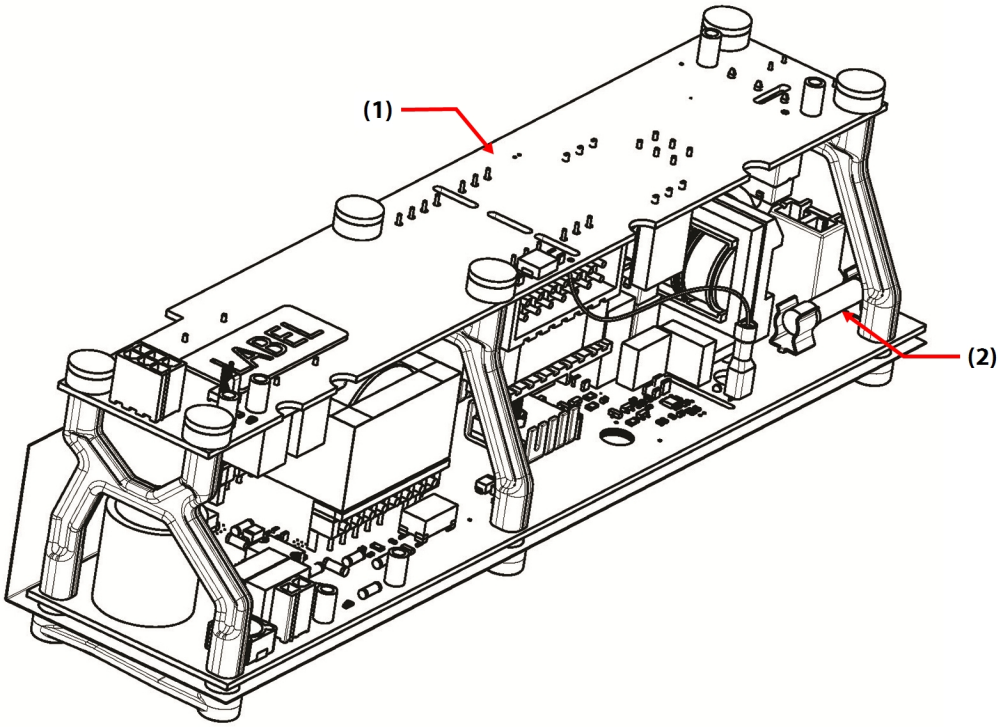
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
COVER PLATE ASSY	100314-2	ALL COMPRESSORS	ALL	Includes O-ring, insulation, and fasteners
O-RING, COVER PLATE ASSY	100315-1	ALL COMPRESSORS	ALL	Includes O-ring, and fasteners

4.9 Hermetic Feedthrough High Power



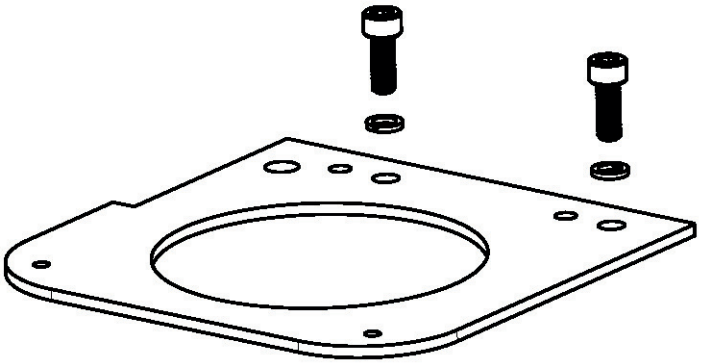
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
HIGH-POWER FEEDTHROUGH	100383	ALL COMPRESSORS	ALL	Includes three high power feedthroughs, fasteners, and O-rings
O-RING, COVER PLATE ASSY	100315-1	ALL COMPRESSORS	ALL	Custom O-ring (shown) and fasteners

4.10 DC-DC Converter



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) DC-DC CONVERTER	100379	ALL COMPRESSORS	ALL	Includes fasteners
(2) FUSE, 2A, 1000V	100084	ALL COMPRESSORS	ALL OPEN FRAME DC-DC CONVERTERS	Includes 2 fuses

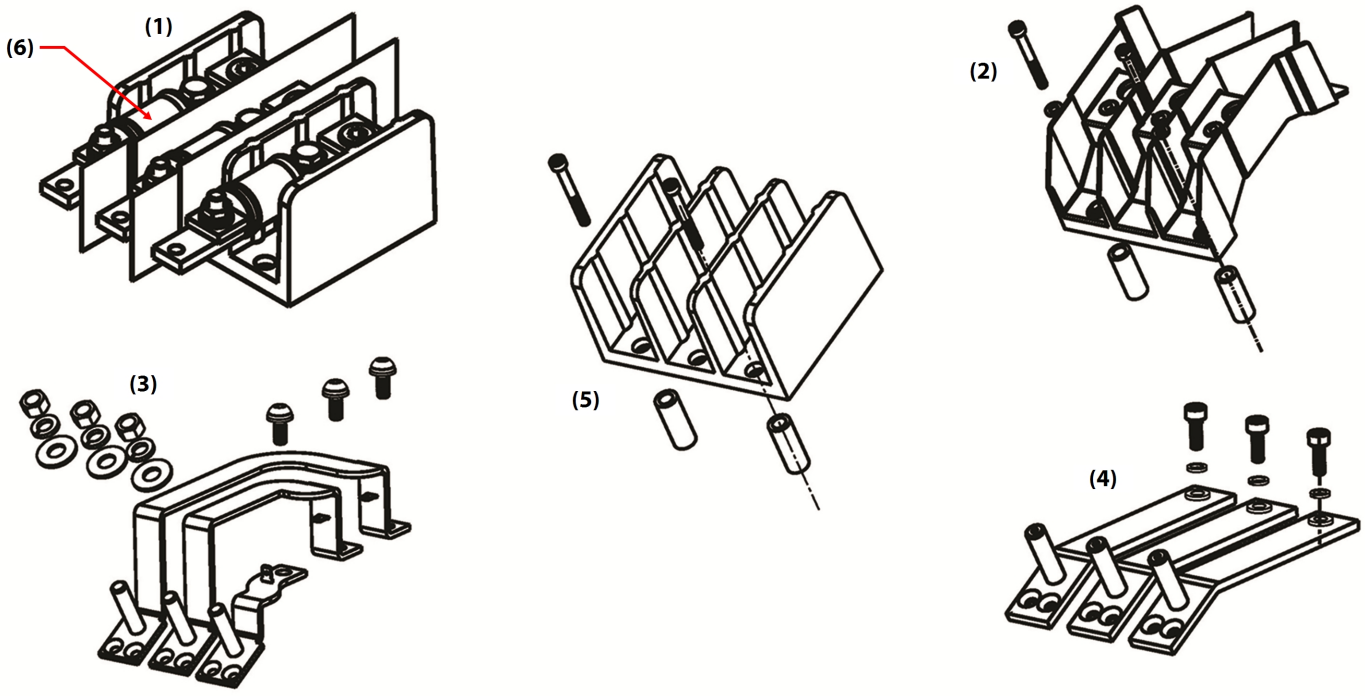
4.11 Mains Input Bracket and Grounding Stud



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
MAINS PLATE BRACKET-2.0 IN DIA	100216	ALL COMPRESSORS	ALL	Includes fasteners and washers
MAINS PLATE BRACKET-2.5 IN DIA	100217	ALL COMPRESSORS	ALL	Includes fasteners and washers
MAINS PLATE BRACKET-3.0 IN DIA	100218	ALL COMPRESSORS	ALL	Includes fasteners and washers
MAINS PLATE BRACKET-3.5 IN DIA	100219	ALL COMPRESSORS	ALL	Includes fasteners and washers
MAIN INPUT GROUND POST	100519 *	ALL COMPRESSORS	ALL	Includes fasteners and washers

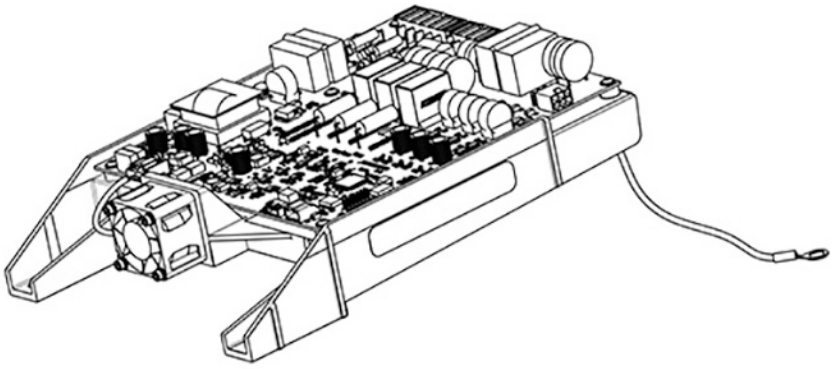
* Not pictured

4.12 Terminal Block Assembly



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) TERMINAL BLOCK AND FUSE ASSY	100048-2	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F ,-G, -H	Replaces Terminal Block assembly, includes fuses, insulator, fuse extension, fasteners, and connectors
(6) MAINS INPUT FUSE	100344	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F ,-G, -H	Replaces the three fuses in the terminal block assembly
(3) INPUT MAINS BUS BARS, CURVED	100416	• TTS350/TTS400/TTS500/TTS700 • TGS310/TGS390/TGS490/TGS520 • TTH375/TGH285	-A, -C, -E, -F	Includes three Bus Bars and fasteners
(4) INPUT MAINS BUS BARS, STRAIGHT	100416-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	Includes three Bus Bars and fasteners
(5) TERMINAL BLOCK ASSY	100048-1	• TTS350/TTS400/TTS500/TTS700 • TGS310/TGS390/TGS490/TGS520 • TTH375/TGH285	-A, -C, -E, -F	Replaces Terminal Block, fasteners, and spacers
(2) TERMINAL BLOCK ASSY	100048-3	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	Replaces Terminal Block, Bus Bars, fasteners, and spacers

4.13 Soft Start Assembly



- It is important to determine the DC-DC that is currently installed on the compressor prior to purchasing a new Soft Start.
- Please refer to the detail in the Comment column below to determine the appropriate kit or other required cables.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SOFT START OPEN TOP UPGRADE	100020-19	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F	Includes Soft Start, DC-DC, Soft Start AC/DC Cable, Soft Start SCR Gate Cable, and fasteners
SOFT START OPEN TOP	100020-18	• TTS300 • TGS230	-G**, -H	Includes fasteners only ****Rev G compressors with Potted DC-DC require Soft Start Upgrade Kit (100020-19) instead** ****Rev G Compressors with Open Frame DC-DC and Closed-Top Soft Start require cables 100380-1 and 100059-1 in addition to this kit**

NOTE
The first compressor to receive the Open Frame DC-DC was S/N **191015180**.
Any compressor prior to S/N **191015180** will require the Soft Start Open Top Upgrade Kit if the upgrade was not previously made.

Soft Start Assembly (continued)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SOFT START OPEN TOP UPGRADE	100020-20	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520	-P, -A, -C, -E	Includes Soft Start, DC-DC, Soft Start AC/DC Cable, Soft Start SCR Gate Cable, and fasteners
SOFT START OPEN TOP	100020-18	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-F**, -H	Includes fasteners ****Rev F compressors with Potted DC-DC require Soft Start Upgrade Kit (100020-20) instead** **** Rev F Compressors with Open Frame DC-DC requires cables 100381-2 and 100059-1 in addition to this kit**

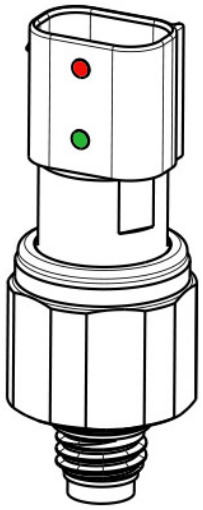
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
COOLING FAN AND ADAPTER	100373-1	ALL COMPRESSORS	ALL	Includes adapter and fasteners

4.14 Soft Start Fuses

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
FUSES, SOFT START	100317-1	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F ,-G	Fuses included: QTY 3 - 2A HVA (F1), QTY 3 - 2A SPF (F1), QTY 10 - 1A Nano (F3, F6), QTY 10 - 0.25A Nano (F2), and QTY 6 - 0.25A Midget (F4, F5)
FUSES, SOFT START	100317-2	ALL COMPRESSORS	-F ,-G	For Soft Starts Rev Q and later, Fuses included: QTY 3 - 2A SPF (F1), QTY 10 - 1A Nano (F3, F6), QTY 10 - Nano 0.25A (F2), and QTY 6 - 0.25A Midget (F4, F5)
FUSE, NANO, SMF, 0.25A 125V	100430	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F ,-G	Includes 10 fuses
FUSE, MIDGET, TIME DELAY, 0.2A, 600V	100432	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F ,-G	Includes six fuses
FUSE, NANO, 1A 125V	100433	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F ,-G	Includes 10 fuses
FUSE, 2A, 1000V, 3IN	100421	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520	-N, -P, -A, -C, -D, -E	For Soft Starts rev P and earlier, includes three fuses
FUSE, 2A, 1000V	100422	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-F , -G	For Soft Starts rev Q and later, includes three fuses

NOTE
There are no fuses required if the compressor has been upgraded with the Open-Top Soft Start.

4.15 Pressure Temperature Sensor Discharge

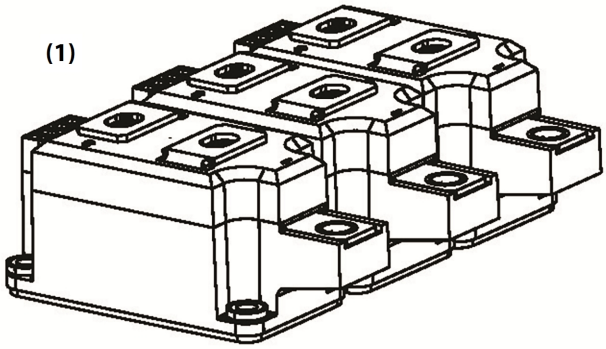


DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
*PRESSURE/TEMP SENSOR, DISCHARGE	100037-2	ALL COMPRESSORS	ALL	Marked with a red dot and a green dot, contains O-ring
O-RING, P/T SENSORS	199K0015	ALL COMPRESSORS	ALL	Includes four O-rings

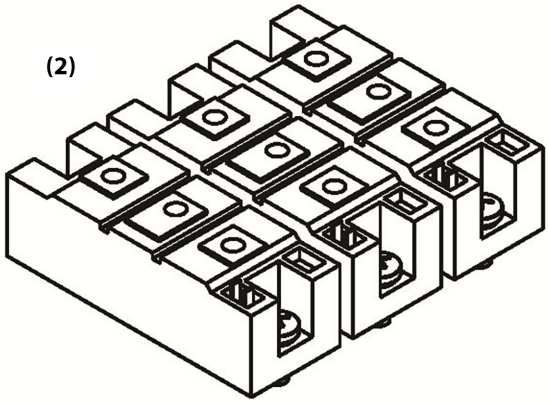
* Also replaces the TTH/TGH compressor Interstage Pressure/Temperature Sensor.

4.16 Silicone-Controlled Rectifiers (SCRs)

(1)



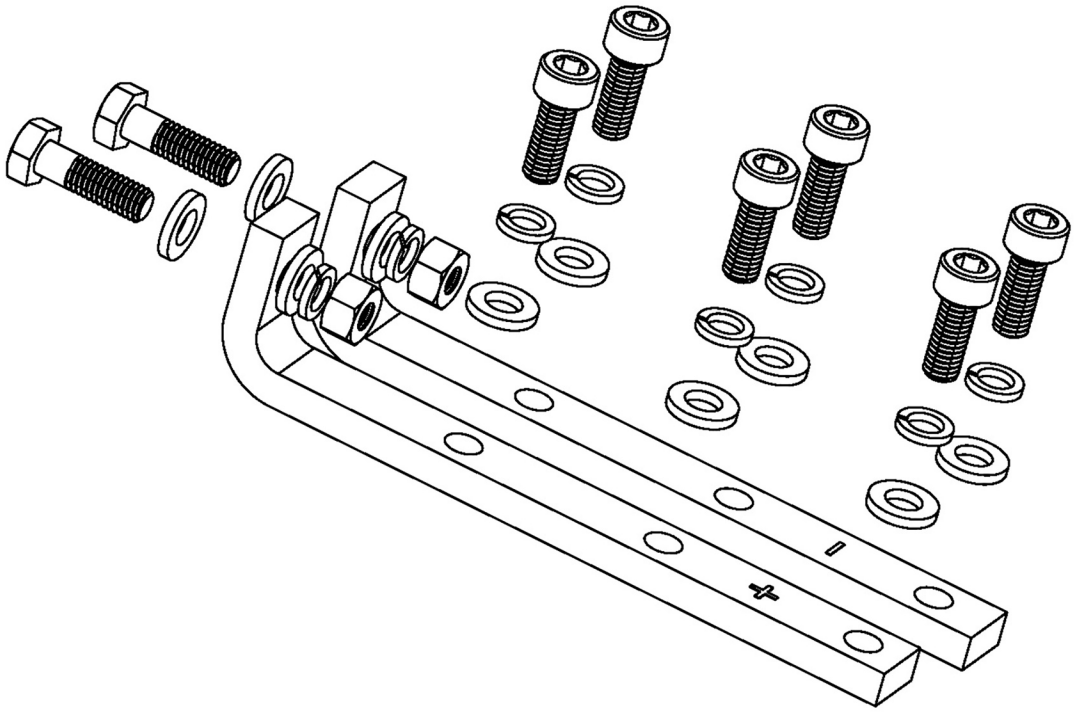
(2)



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(2) SILICONE CONTROLLED RECTIFIERS	100047-1	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F , -G, -H	Includes fasteners **Not interchangeable with Kit 100047-3**
(2) SILICONE CONTROLLED RECTIFIERS	100047-1	• TTS400 • TGS390	-H	Includes fasteners **Not interchangeable with Kit 100047-3**
(1) SILICONE CONTROLLED RECTIFIERS	100047-2	• TTS350/TTS500/TTS700 • TGS310/TGS490/TGS520 • TTH375/TGH285	-A, -C, -E, -F	Includes fasteners
(1) SILICONE CONTROLLED RECTIFIERS	100047-2	• TTS400 • TGS390	-P, -A, -C, -E, -F	Includes fasteners
(2) SILICONE CONTROLLED RECTIFIERS	100047-3	• TTS350/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS490/TGS520 • TTH375/TGH285	-H	Includes fasteners **Not interchangeable with Kit 100047-1**

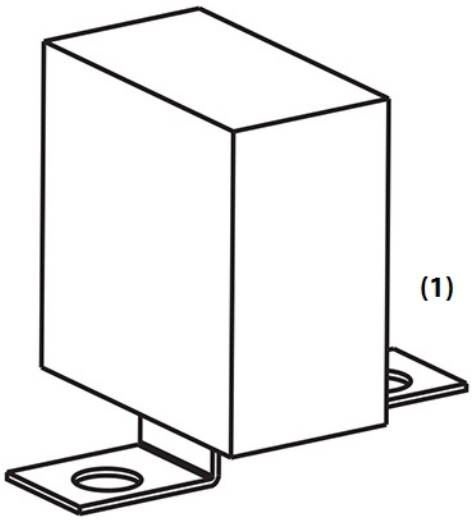
NOTE
SCRs should always be replaced as a kit.

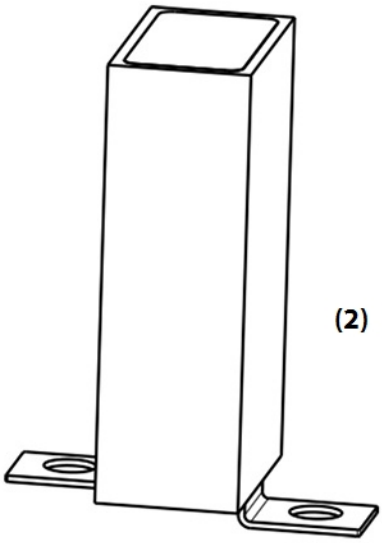
4.17 Bus Bar



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SCR BUS BAR	100316	• TTS300 • TGS230	ALL	Includes positive and negative Bus Bars and fasteners

4.18 Snubber Capacitors

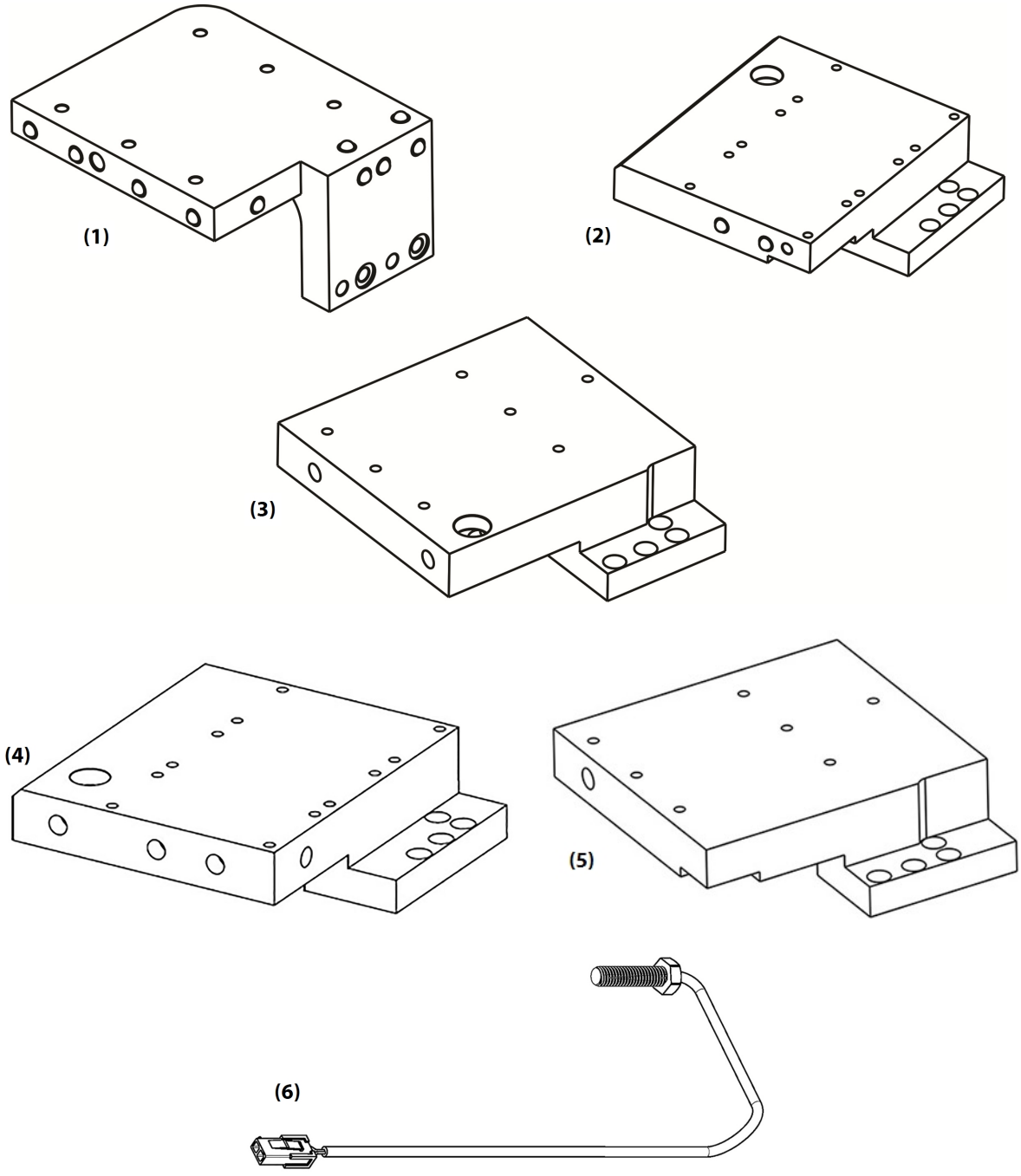




DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) SNUBBER CAPACITOR, 0.47µF, 1000VDC	100417	• TTS300 • TGS230	-N, -P, -C, -D, -E, -F, -G	Includes three snubbers and fasteners
(1) SNUBBER CAPACITOR, 0.47µF, 1000VDC	100417	• TTS350/TTS400/TTS500/TTS700 • TGS310/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F	Includes three snubbers and fasteners
(2) INVERTER SNUBBER CAPACITOR, 0.47µF, 1000VDC	100417-2	ALL COMPRESSORS	-H	Includes three snubbers and fasteners

NOTE
Snubber capacitors should always be replaced as a kit.

4.19 SCR Heatsink Assembly



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) SCR COOLING MANIFOLD	100309-11	• TTS300 • TGS230	ALL	Includes O-rings and fasteners (sensor not applicable)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(2) SCR COOLING MANIFOLD	100309-13	• TTS350/TTS400/TTS500/TTS700 • TGS310/TGS390/TGS490/TGS520	-P, -A, -C, -E, -F	Includes O-rings and fasteners (sensor not applicable) **Standard Temp Models only**
(5) SCR COOLING MANIFOLD	199K0024	• TTS350/TTS400/TTS450/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520	-H **(Standard SST)**	Includes O-rings, SCR Manifold Return Fitting, and fasteners (sensor not applicable) **Standard Temp Models only**
(3) SCR COOLING MANIFOLD	100309-8	• TTS350/TTS400/TTS450/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285 (all models)	-H **(High SST)**	High SST Option Includes O-rings, SCR Manifold Return Fitting, and fasteners (sensor not applicable) **Refer to Note 2 when converting to High SST** **Not interchangeable with Kit 100309-7**
(4) SCR COOLING MANIFOLD	100309-7	• TTH375/TGH285	-F, G	Includes O-rings and fasteners **Not interchangeable with Kit 100309-8** **Both standard and high temp**
O-RINGS, SCR COOLING MANIFOLD	100310-2	• TTS300 • TGS230	ALL	Replaces Inverter and SCR Heatsink Manifold O-rings and fasteners
O-RINGS, SCR COOLING MANIFOLD	100310-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	ALL	Replaces Inverter and SCR Heatsink Manifold O-rings and fasteners

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(6) SCR COOLING MANIFOLD TEMP SENSOR	100268	• TTS300/TTS350/TTS400/TTS500/TTS700 • TGS230/TGS310//TGS390/TGS490/TGS520	-N, -P, -A, -C, -D, -E, -F , -G	Includes washers **Will not work in Rev H compressors**

NOTE 1

The SCR Temperature Sensor is not required on Revision H compressors.

NOTE 2

A TTS/TGS model series standard temperature compressor can be converted to a high temperature compressor. To do so, the following items are required:

- 100309-8 - Heatsink, Cooling Manifold SCR Assembly
- 201055-xxxxxxx-xxx 4.3.0 BMCC*
- 100417-2 - CAPACITOR INVERTER SNUBBER, 0.47Y1000

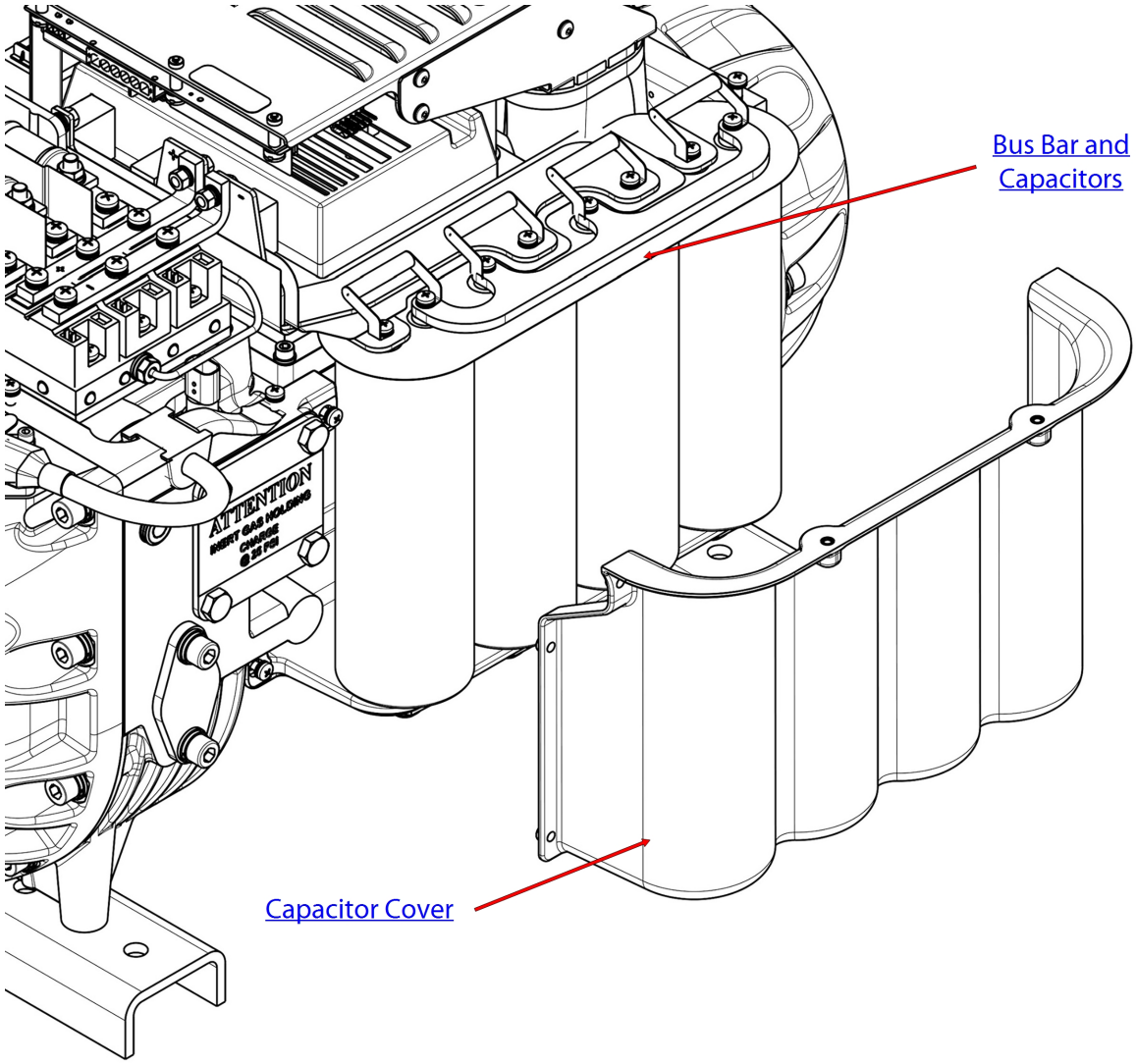
*BMCC PNs are not unique between application option ST (Standard Temperature) and HT (High Temperature); however, HT applications require software version 4.3.0 and later to operate.

The SCR Manifold Return Brass Fitting may be required to be replaced if the compressor was manufactured after May 31, 2024. The brass fitting is included in kit 100309-8. Refer to the SCR Cooling Manifold Instructions for more information.

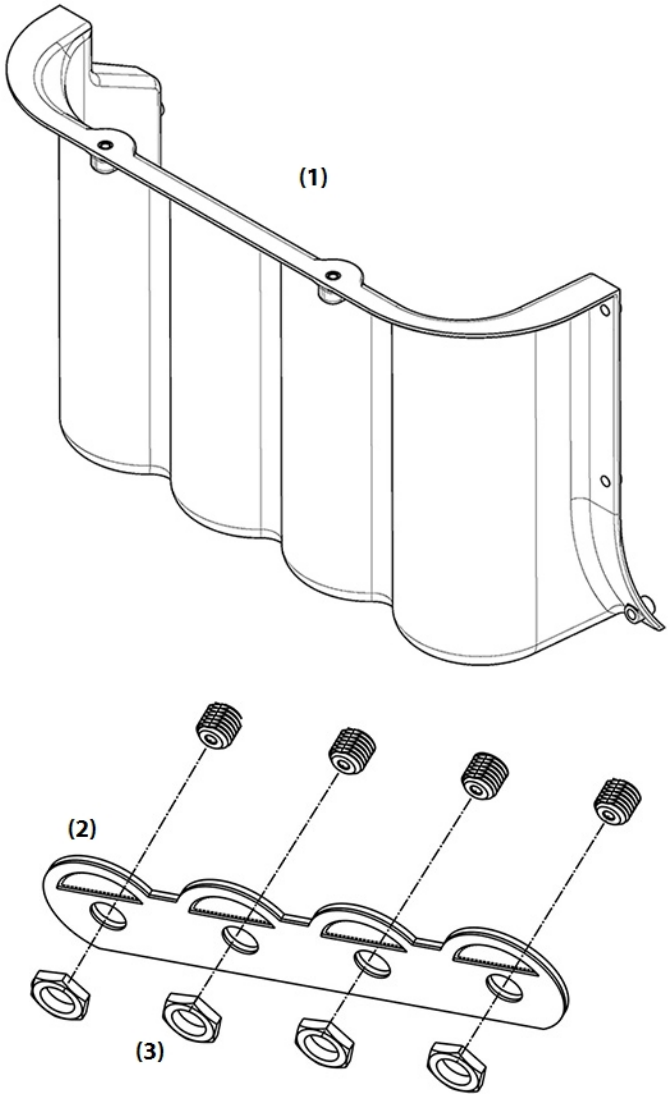
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Chapter 5.0 Capacitor Side

This section details the spare part kits that are visible from the discharge side of the compressor underneath the Capacitor and Mains Input cover.

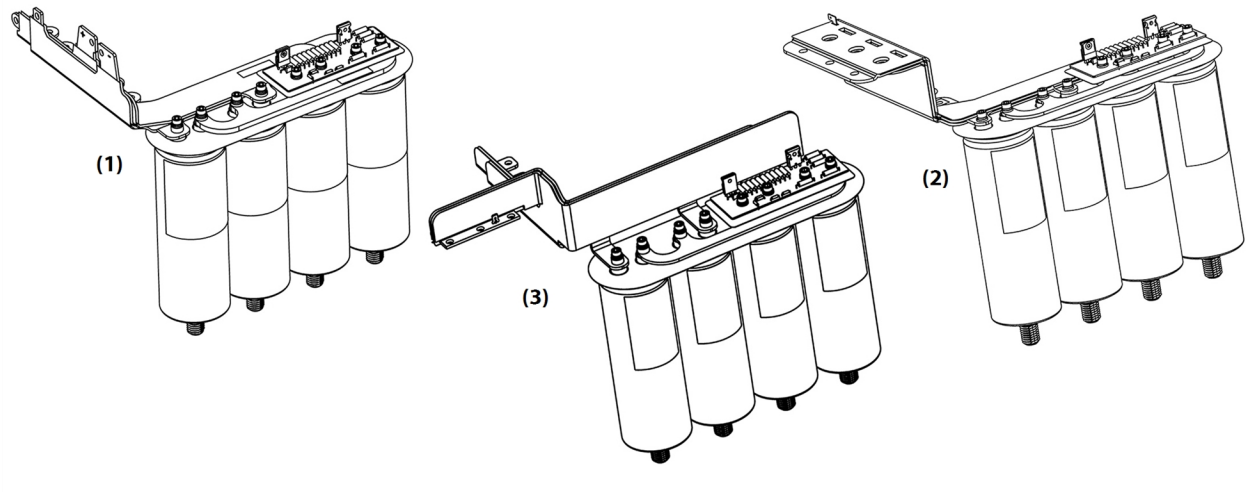


5.1 Capacitor Cover



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) CAPACITOR COVER, BLACK	100053-3	• TT300/TTS350/TS3TS400/TTS450/TTS500/TTS700 • TTH375	ALL	Includes fasteners
(1) CAPACITOR COVER, GREEN	100053-6	• TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TGH285	ALL	Includes fasteners
(2) & (3) CAP MEMBRANE	100122	ALL COMPRESSORS	ALL	Includes nylon hex nuts
COVERS SCREW, M5, STAINLESS	100252	ALL COMPRESSORS	ALL	Replaces fasteners for all four covers (24 fasteners)

5.2 Bus Bar and Capacitor Assembly

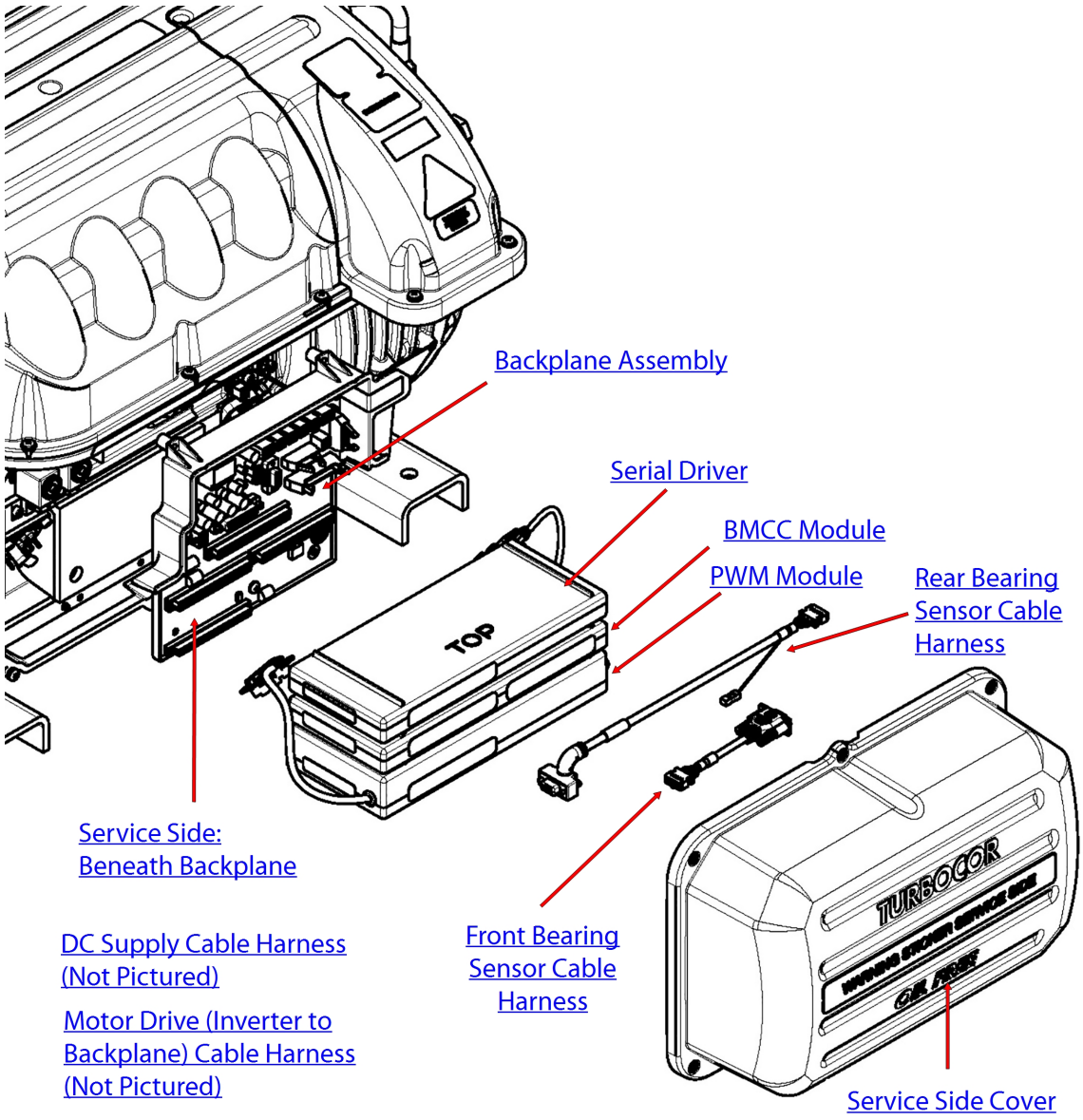


DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) DC CAPACITOR ASSY, 6800µF (460V)	100044-7	• TTS300/TGS230	-N, -P, -C, -D, -E, -F, -G, -H	For use with 460V models; includes relief membrane and nylon nuts
(1) DC CAPACITOR ASSY, 4700µF (575V)	100044-8	• TTS300/TGS230	-N, -P, -C, -D, -E, -F, -G, -H	For use with 575V models; includes relief membrane and nylon nuts
(1) DC CAPACITOR ASSY, 9000µF (380/400V)	100044-6	• TTS300/TGS230	-N, -P, -C, -D, -E, -F, -G, -H	For use with 380/400V models; includes relief membrane and nylon nuts
(2) DC CAPACITOR ASSY, 11000µF (380/400V)	100044-11	• TTS350/TTS400/TTS500/TTS700 • TGS310/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F	For use with 380V and 400V models; includes relief membrane and nylon nuts
(3) DC CAPACITOR ASSY, 11000µF (380/400V)	100044-14	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	For use with 380V and 400V models, includes nylon nuts
(2) DC CAPACITOR ASSY, 6800µF (575V)	100044-13	• TTS350/TTS400/TTS500/TTS700 • TGS310/TGS390/TGS490/TGS520 • TTH375/TGH285	-C, -E, -F	For use with 575V models; includes relief membrane and nylon nuts
(3) DC CAPACITOR ASSY, 6800µF (575V)	100044-16	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	For use with 575V models; includes relief membrane and nylon nuts

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(2) DC CAPACITOR ASSY, 8500µF (460V)	100044-12	• TTS350/TTS400/TTS500/TTS700 • TGS310/TGS390/TGS490/TGS520 • TTH375/TGH285	-P, -A, -C, -E, -F	For use with 460V models; includes relief membrane and nylon nuts
(3) DC CAPACITOR ASSY, 8500µF (460V)	100044-15	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	-H	For use with 460V models; includes relief membrane and nylon nuts

Chapter 6.0 Service Side

This section details the spare part kits available on the service side of the compressor underneath the Service Side cover.

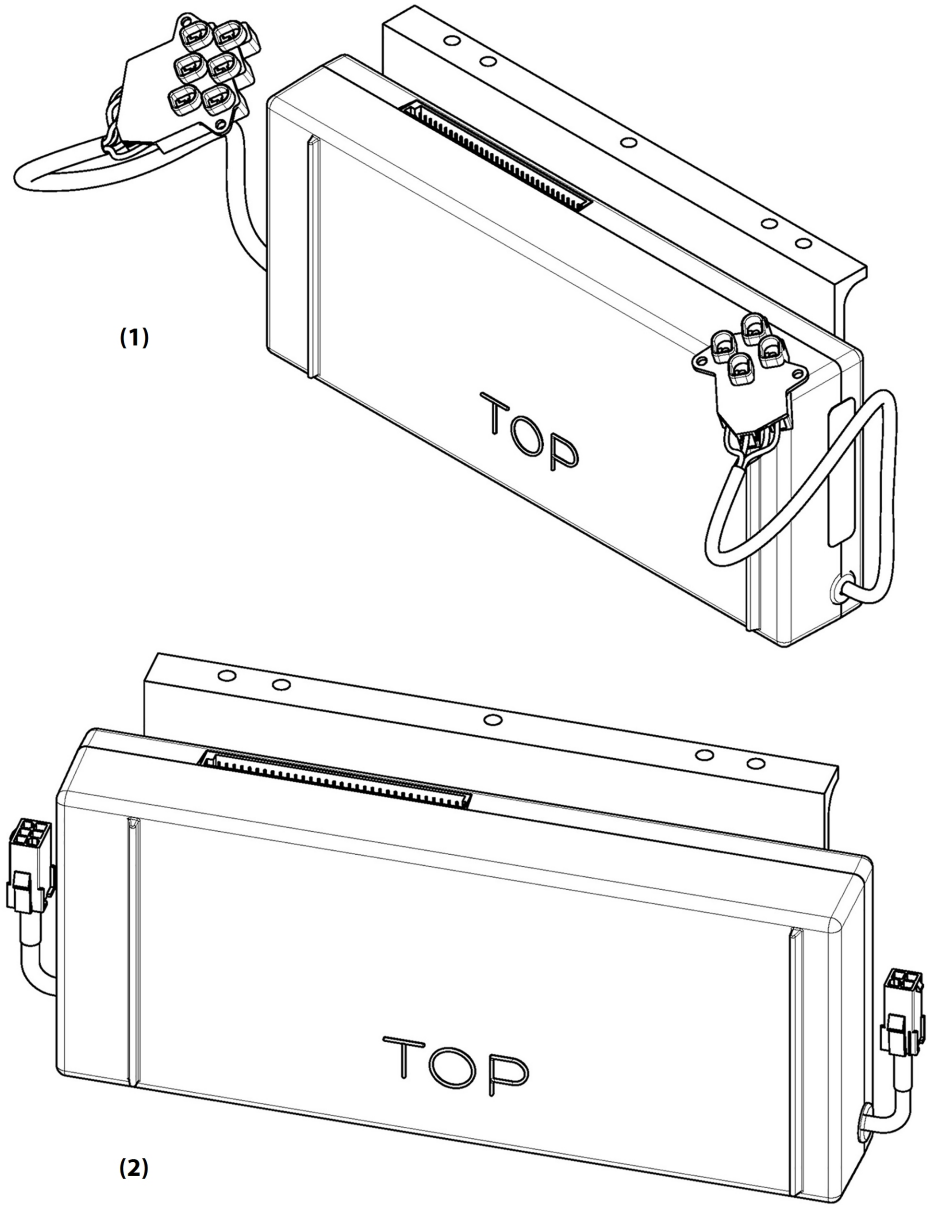


6.1 Cover



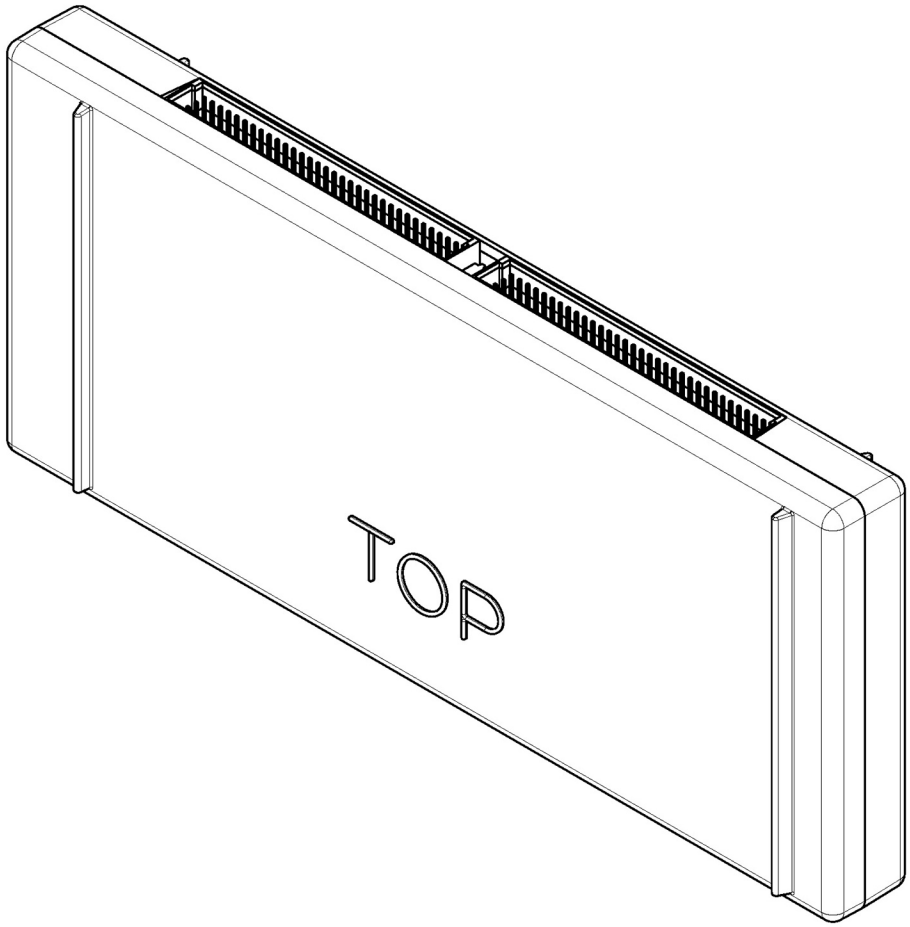
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SERVICE SIDE COVER , BLACK	100055-3	• TTS300/TTS350/TTS400/TTS450/TTS500/TTS700 • TTH375	ALL	Includes fasteners
SERVICE SIDE COVER, GREEN	100055-6	• TGS230/TGS310/TGS380/TGS390/TGS490/TGS520 • TGH285	ALL	Includes fasteners
COVERS SCREW, M5, STAINLESS	100252	ALL COMPRESSORS	ALL	Replaces fasteners for all four covers (24 fasteners)

6.2 Pulse Width Modulation (PWM) Module



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) BEARING PWM	100022	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E	Includes fasteners
(2) BEARING PWM	100372	ALL COMPRESSORS	-F, -G, -H	Includes fasteners

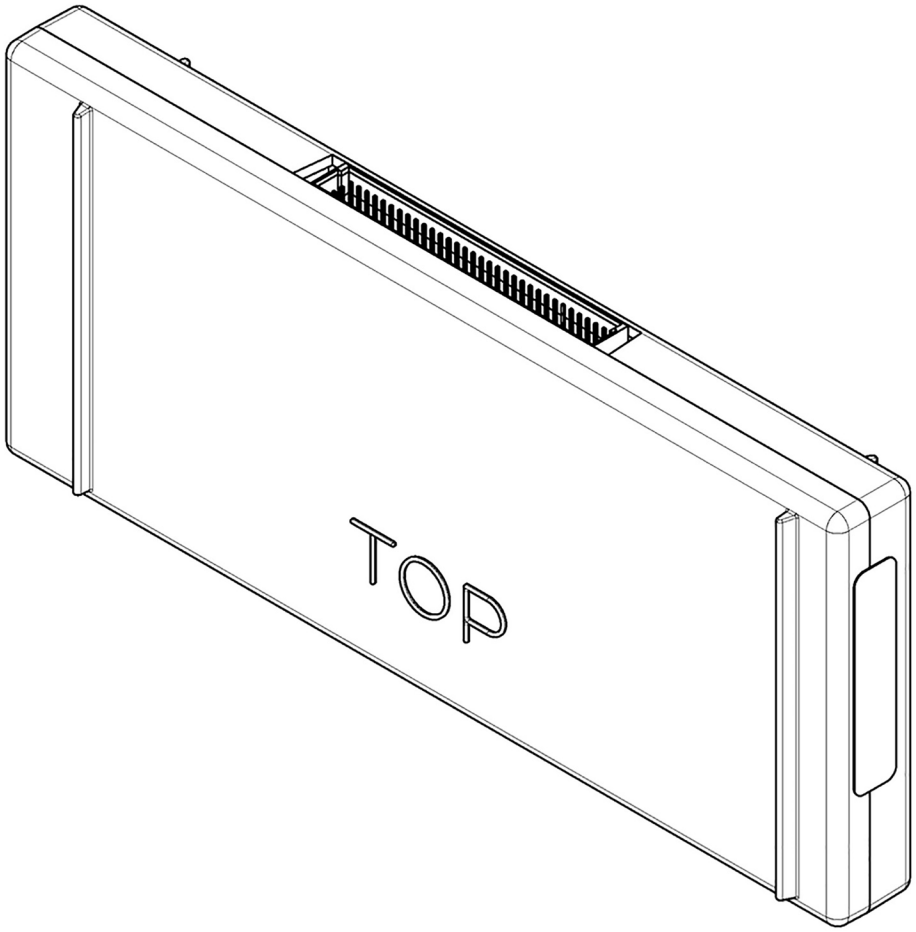
6.3 Bearing Motor Compressor Control (BMCC) Module



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
BEARING MOTOR COMPRESSOR CONTROL (BMCC)	201055-xxxxxxx-xxx	ALL COMPRESSORS	ALL	Specific compressor software part number used in place of -**xxxxxxx-xxx**, Contains BMCC with compressor specific software only

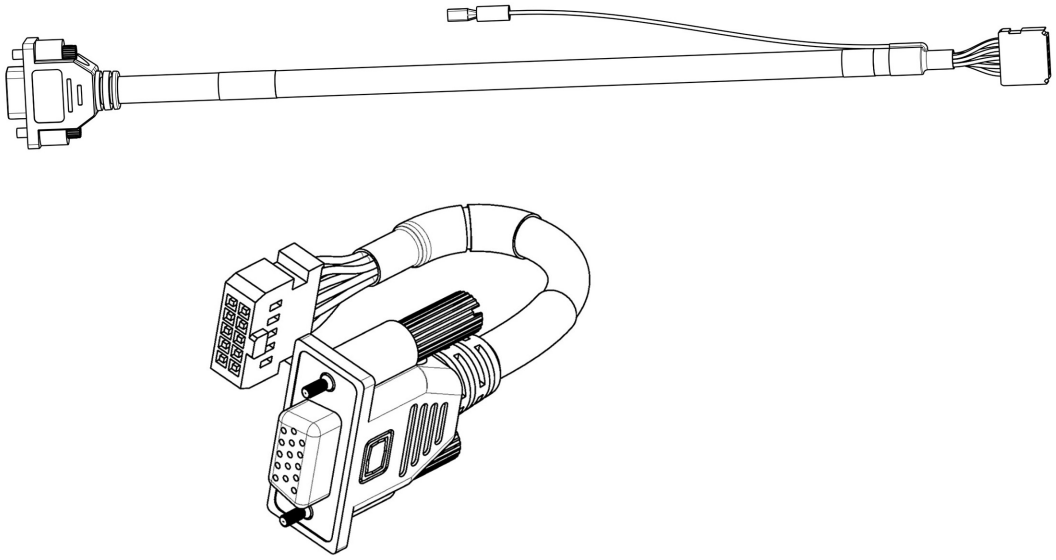
NOTE
Specific BMCC part numbers canbe found in Customer Notification B-CN-181.

6.4 Serial Driver



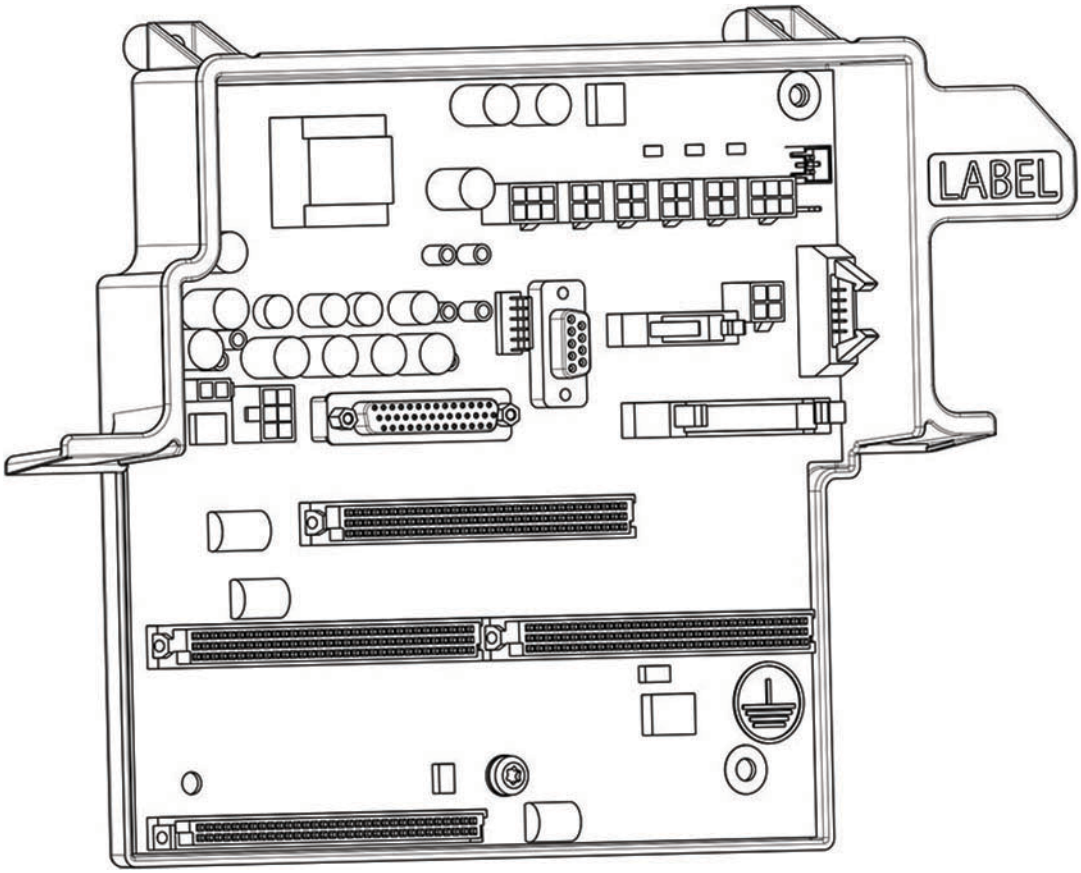
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SERIAL DRIVER	100292	ALL COMPRESSORS	ALL	Serial Driver Only

6.5 Rear/ Front Bearing Sensor Cable Harness



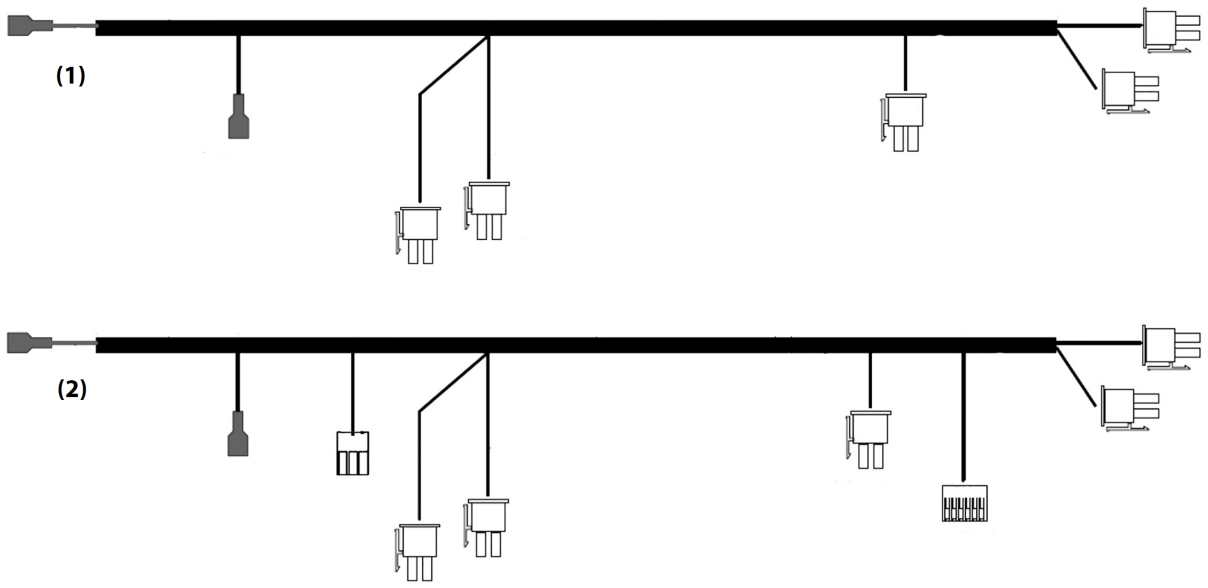
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) REAR BEARING SENSOR CABLE HARNESS	100065	ALL COMPRESSORS	ALL	Cable Only
(2) FRONT BEARING SENSOR CABLE HARNESS	100064	ALL COMPRESSORS	ALL	Cable Only

6.6 Backplane Assembly



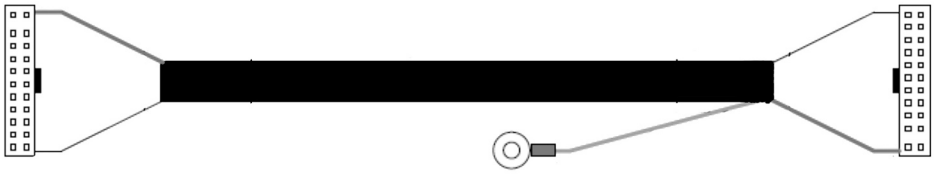
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
BACKPLANE ASSEMBLY	100021-2	ALL COMPRESSORS	ALL	Includes screws and washers

6.7 DC Supply Cable Harness



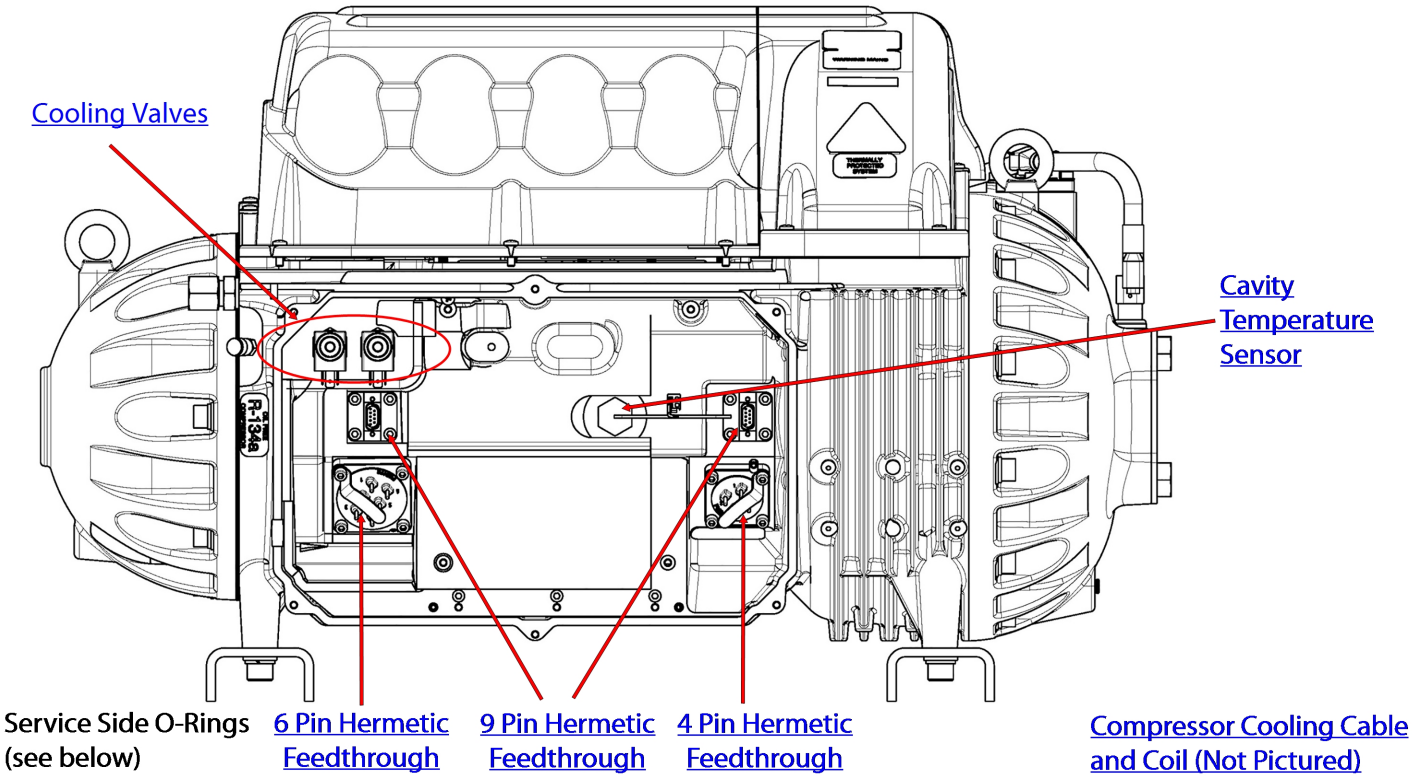
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) DC SUPPLY CABLE HARNESS	100323	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E	Cable Only
(2) DC SUPPLY CABLE HARNESS	100323-2	ALL COMPRESSORS	-F, -G, -H	Cable Only Soft Start Temperature Sensor is only required in CC Firmware Revision 4.x and later

6.8 Motor Drive (Inverter to Backplane) Cable Harness



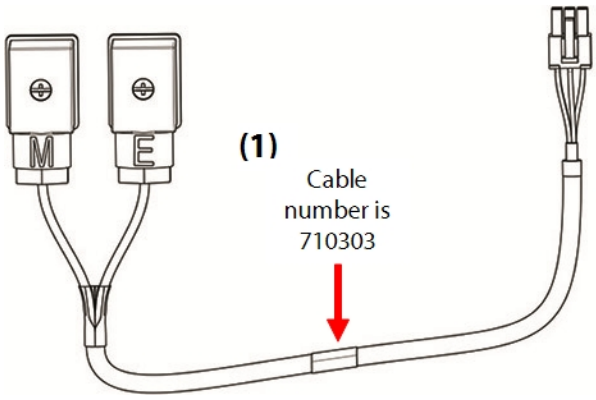
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
MOTOR DRIVE CABLE HARNESS	100061	ALL COMPRESSORS	ALL	Cable Only

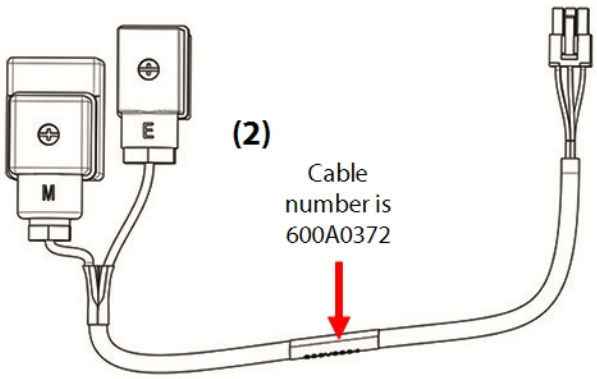
6.9 Service Side Beneath Backplane



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
O-RINGS, SERVICE SIDE, SMALL	199K0031	ALL COMPRESSORS	ALL	Includes O-rings for cooling valves, 6 Pin, 4 Pin, and 9 Pin Hermetic Feedthroughs
O-RING, SOLENOID ORIFICE	199K0030	ALL COMPRESSORS	ALL	Only replaces cooling valve O-rings

6.10 Compressor Cooling Cable and Coil Assembly

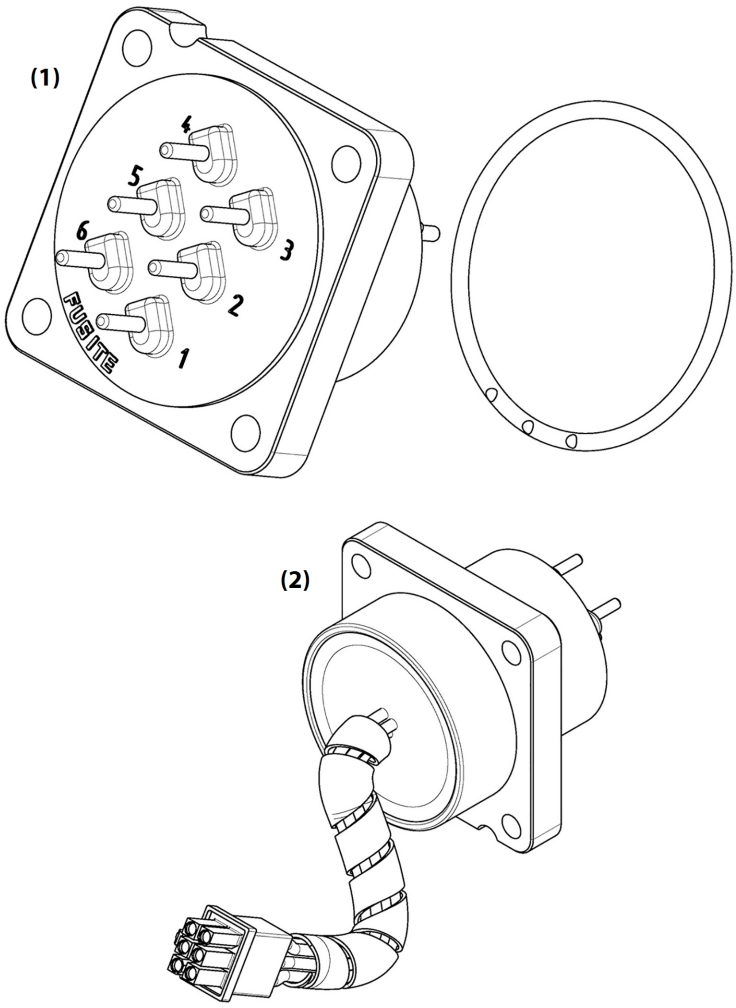




DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) COMPRESSOR COOLING CABLE/COIL ASSY	100063-1	ALL COMPRESSORS	ALL	Includes hardware **Refer to Note below before purchasing!**
(2) COMPRESSOR COOLING CABLE/COIL ASSY	199K0026	• TTS450 • TGS380 • TTH375/TGH285	-H	Includes hardware **The introduction of this new valve has been applied starting with the following compressors:** • **TTH375 / TGH285 (S/N 2419950194 and later)** • **TGS380 / TTS450 (S/N 2419950222 and later)** **Refer to Note below before purchasing!**

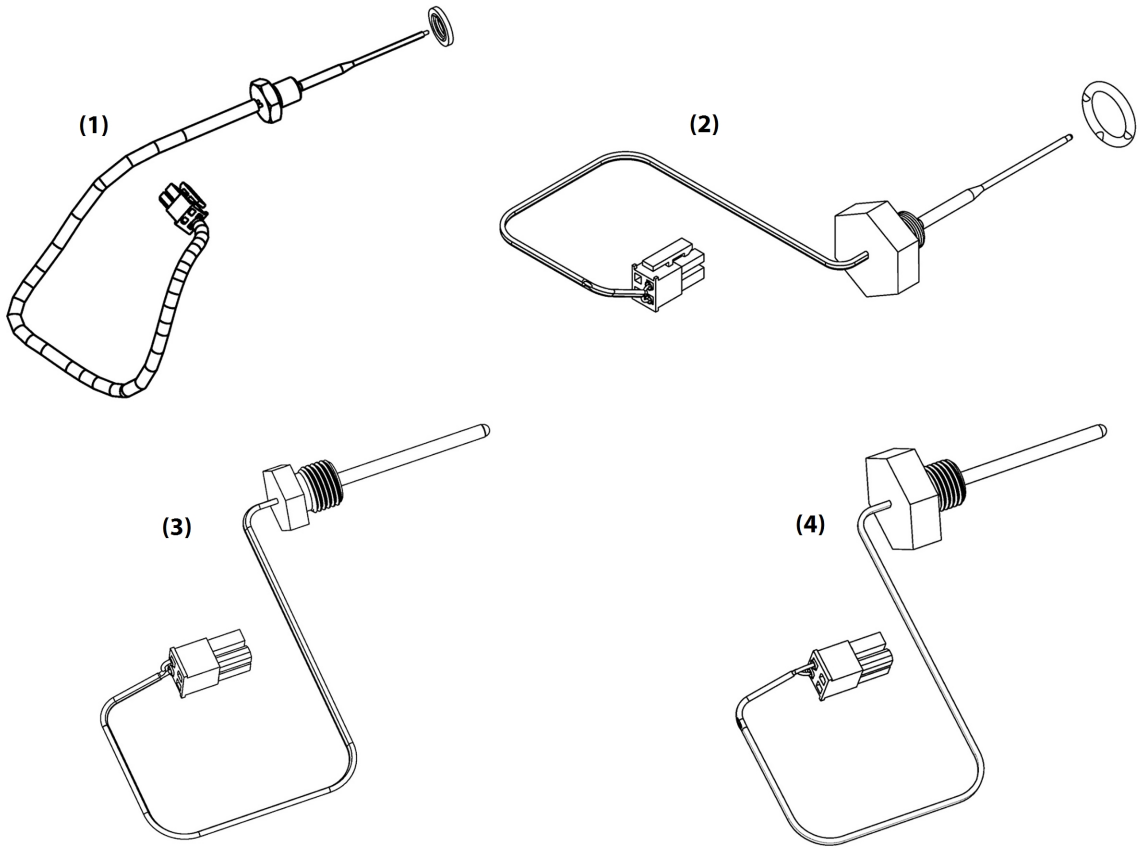
NOTE
In some cases, the Motor Cooling Solenoid for a compressor manufactured prior to the serial numbers defined may have been upgraded and therefore, verification of the correct replacement parts is necessary. Please refer to Customer Notification B-CN-370 for any additional information regarding the upgrade.

6.11 6-Pin Hermetic Feedthrough



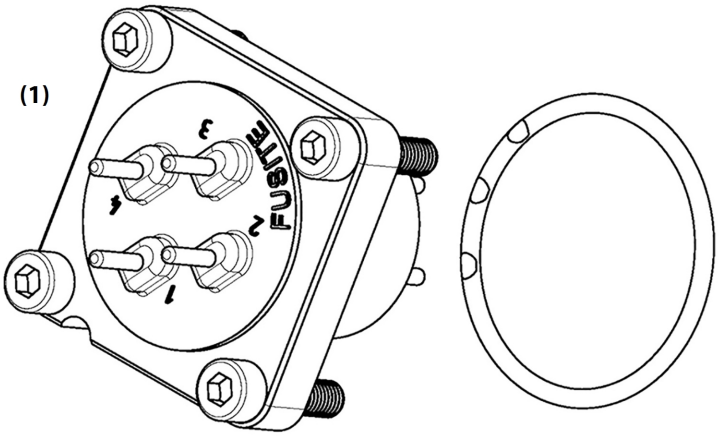
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) FEEDTHROUGH, 6 PIN	100294-1	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E	Includes O-ring and fasteners
(2) FEEDTHROUGH, 6 PIN	100371	ALL COMPRESSORS	-F, -G, -H	Includes O-ring and fasteners

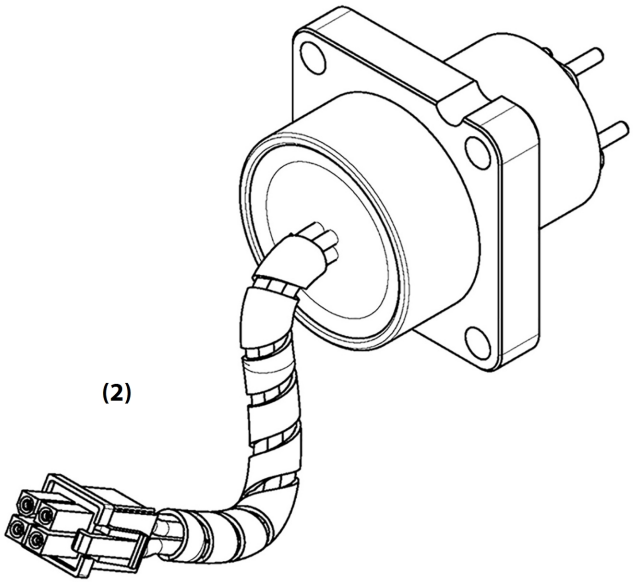
6.12 Cavity Temperature Sensor/Motor Rotor



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) CAVITY TEMP SENSOR	100034	• TTS300/TTS350/TTS400	-N, -P, -A, -C, -D	Do not use if compressor PN ends in "-3" Includes Sensor and Seal **(16mm sensor head)**
(2) CAVITY TEMP SENSOR	100196-3	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390/TGS490 • TTH375/TGH285	-E, -F, -G, -H	Also use if compressor part number ends in "-3", Includes O-ring **(15/16" sensor head)**
(3) CAVITY TEMP SENSOR	100034-1	• TTS500	-A	Do not use if compressor PN ends in "-3", Includes O-ring **(16mm sensor head)**
(4) CAVITY TEMP SENSOR	100196-4	• TTS500/TTS700 • TGS520	-E, -F, -G, -H	Also use if compressor part number ends in "-3", includes O-ring **(15/16" sensor head)**

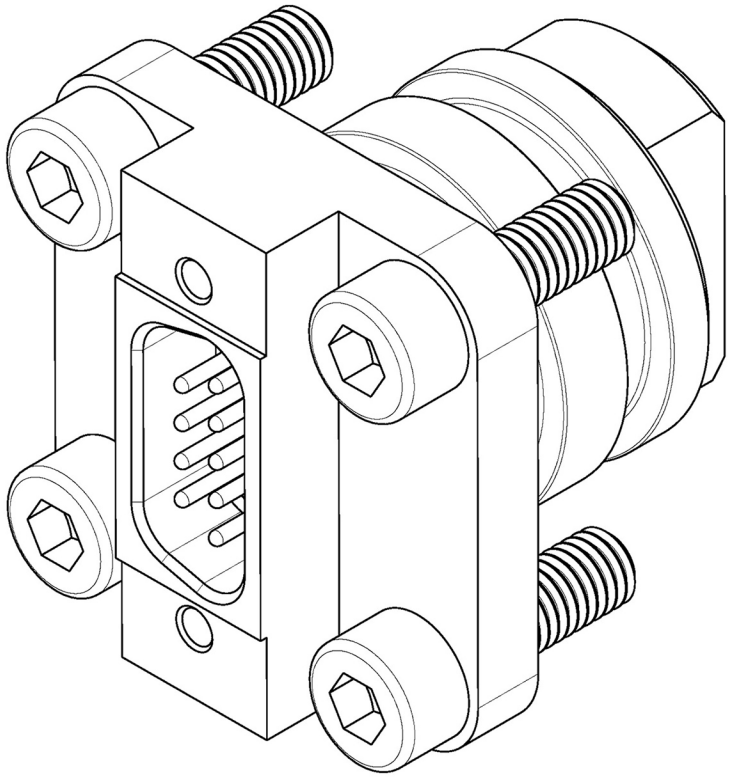
6.13 4-Pin Hermetic Feedthrough





DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) FEEDTHROUGH, 4 PIN	100293-1	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E	Includes O-ring and fasteners
(2) FEEDTHROUGH, 4 PIN	100370	ALL COMPRESSORS	-F, -G, -H	Includes O-ring and fasteners

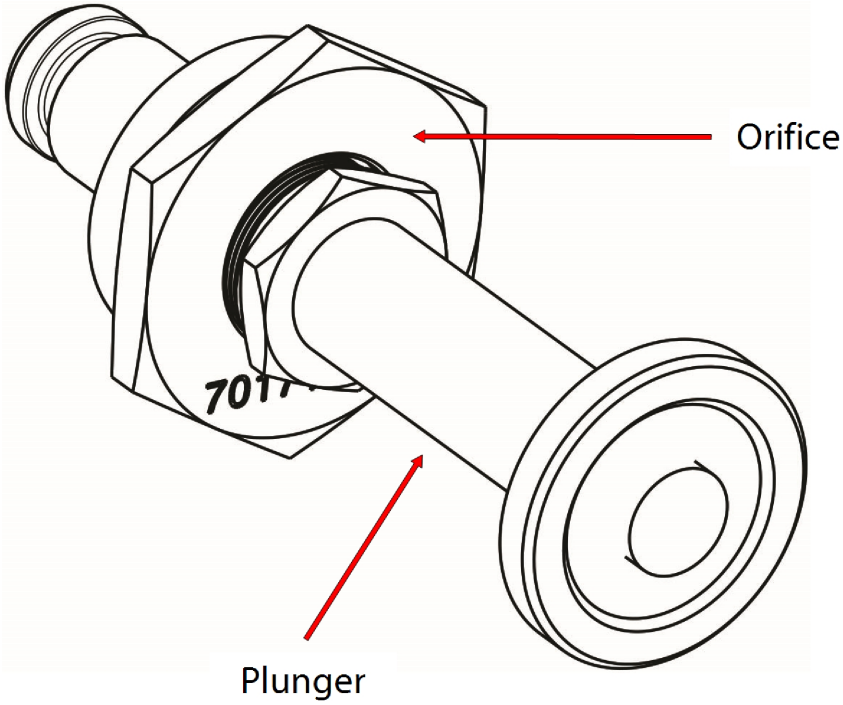
6.14 9-Pin Hermetic Feedthrough



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
FEEDTHROUGH, 9 PIN	100295-1	ALL COMPRESSORS	ALL	Includes O-ring and fasteners

6.15 Cooling Valves Assembly

Each Cooling Valve Assembly spare part kit contains two (2) Plunger Assemblies, two (2) Orifices for the Inverter and Motor Cavity ports, and the O-rings required to replace them. The table on the following page is organized so that each row contains all of the related cooling valve kits. Plunger Assembly kits include O-rings, which cannot be ordered separately. Orifice kits do not include O-rings therefore they must be purchased separately.



6.16 Cooling Valves

Refer to the table below to select the proper Cooling Valve Assembly. Match the model and voltage of the compressor to determine the appropriate part number.

COOLING VALVE ASSEMBLY				
COMPRESSOR MODELS	COMPRESSOR VOLTAGE			
	380V	400V	460V	575V
TGS230	100281-2	100281-2	100281-2	100281-2
TGH285	100281-5/ 199K0029*	100281-5/ 199K0029*	100281-5/ 199K0029*	100281-5/ 199K0029*
TTS300	100281-2	100281-2	100281-2	100281-2
TGS310	100281-1	100281-1	100281-1	100281-1
TTS350	100281-5	100281-5	100281-5	100281-5
TTH375	100281-5/ 199K0029*	100281-5/ 199K0029*	100281-5/ 199K0029*	100281-5/ 199K0029*
TGS380	100281-5/ 199K0029*	100281-5/ 199K0029*	100281-5/ 199K0029*	100281-5/ 199K0029*
TGS390	100281-4	100281-4	100281-4	100281-1
TTS400	100281-4	100281-4	100281-4	100281-1
TTS450	100281-5/ 199K0029*	100281-5/ 199K0029*	100281-5/ 199K0029*	100281-5/ 199K0029*
TGS490	100281-5	100281-5	100281-5	100281-5
TTS500	N/A	100281-3	100281-3	100281-3
TGS520	100281-3	100281-3	100281-3	100281-3
TTS700	100281-3	100281-3	100281-3	100281-3

The introduction of this new cooling valve has been applied starting with the following compressors:

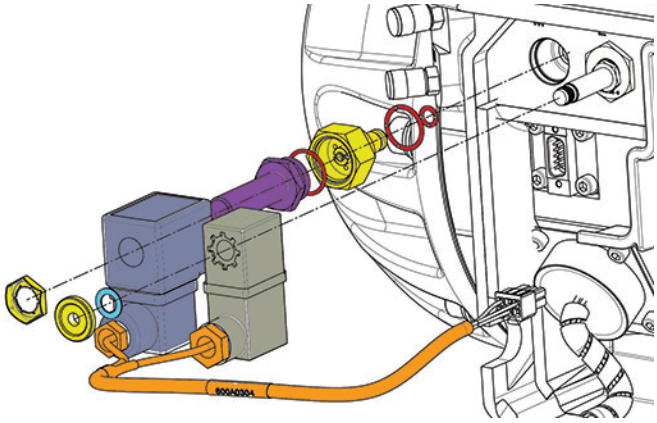
- **TTH375 / TGH285 (S/N 2419950194 and later)**
- **TGS380 / TTS450 (S/N 2419950222 and later)**

Refer to Note below before purchasing!

NOTE
* In some cases, the Motor Cooling Solenoid for a compressor manufactured prior to the serial numbers defined may have been upgraded and therefore, verification of the correct replacement parts is necessary. Please refer to Customer Notification B-CN-370 for any additional information regarding the upgrade.
These kits only apply to the compressor models listed.

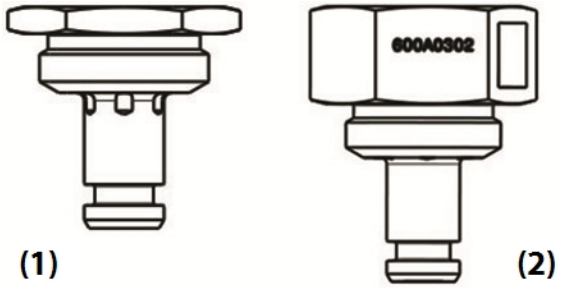
6.16.1 Solenoid Plunger and Harness Field Upgrade Kit

If service is to be performed on an installed compressor which has not been upgraded, Danfoss LLC recommends upgrading the entire valve with the new kit as opposed to servicing with the previously available spare part kits. This would only apply when the service is being performed on the Motor Cooling Valve for TTH375/TGH285 & TGS380/TTS450 Major Revision H models.



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SOLENOID PLUNGER-HARNESS FIELD REPLACEMENT	199K0025	• TTS450 • TGS380 • TTH375/TGH285	-H	Includes Motor Plunger, Orifice, Solenoid Coil/Harness Assy, O-rings, and hardware

6.16.2 Orifice Body



Orifice number begins with 70xxxx

Orifice number begins with 60xxxx

Refer to the table below to select the proper orifice. Match the model and voltage of the compressor to determine the appropriate part number. You will also need to purchase an O-ring set for each orifice kit. The part number for the O-ring set is 199K0030.

ORIFICE BODY				
COMPRESSOR MODELS	COMPRESSOR VOLTAGE			
	380V	400V	460V	575V
TGS230 (Motor & Electronics)	100236	100236	100236	100236
TGH285 (Motor)	100238/ 199K0027*	100238/ 199K0027*	100238/ 199K0027*	100238/ 199K0027*
TGH285 (Electronics)	100239	100239	100239	100239
TTS300 (Motor & Electronics)	100236	100236	100236	100236
TGS310 (Motor)	100239	100239	100239	100239
TGS310 (Electronics)	100240	100240	100240	100240
TTS350 (Motor)	100238	100238	100238	100238
TTS350 (Electronics)	100239	100239	100239	100239
TTH375 (Motor)	100238/ 199K0027*	100238/ 199K0027*	100238/ 199K0027*	100238/ 199K0027*
TTH375 (Electronics)	100239	100239	100239	100239
TGS380 (Motor)	100238/ 199K0027*	100238/ 199K0027*	100238/ 199K0027*	100238/ 199K0027*
TGS380 (Electronics)	100239	100239	100239	100239
TGS390 (Motor)	100240	100240	100240	100239
TGS390 (Electronics)	100240	100240	100240	100240
TTS400 (Motor)	100240	100240	100240	100239
TTS400 (Electronics)	100240	100240	100240	100240
TTS450 (Motor)	100238/ 199K0027*	100238/ 199K0027*	100238/ 199K0027*	100238/ 199K0027*

ORIFICE BODY				
COMPRESSOR MODELS	COMPRESSOR VOLTAGE			
	380V	400V	460V	575V
TTS450 (Electronics)	100239	100239	100239	100239
TGS490 (Motor)	100238	100238	100238	100238
TGS490 (Electronics)	100239	100239	100239	100239
TTS500 (Motor)	100238	100238	100238	100238
TTS500 (Electronics)	100240	100240	100240	100240
TGS520 (Motor)	100238	100238	100238	100238
TGS520 (Electronics)	100240	100240	100240	100240
TTS700 (Motor)	100238	100238	100238	100238
TTS700 (Inverter)	100240	100240	100240	100240

NOTE

No O-ring included in the Orifice Body kits. **Part number 199K0030 (O-RING, SOLENOID ORIFICE) should be ordered with any orifice kit.**

The introduction of this new orifice body has been applied starting with the following compressors:

- **TTH375 / TGH285 (S/N 2419950194 and later)**
- **TGS380 / TTS450 (S/N 2419950222 and later)**

Refer to Note below before purchasing!

NOTE

* In some cases, the Motor Cooling Solenoid for a compressor manufactured prior to the serial numbers defined may have been upgraded and therefore, verification of the correct replacement parts is necessary. Please refer to Customer Notification B-CN-370 for any additional information regarding the upgrade.

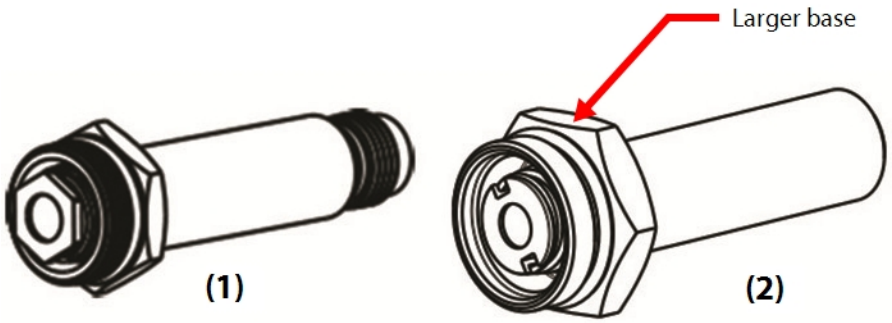
These kits only apply to the compressor models listed.

The table below identifies the orifice size for each part number.

ORIFICE SIZE	PART NO.
1.3MM	100236
1.6MM	100240
2.0MM	100239
2.5MM	100238*
2.5MM	199K0027*

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
O-RING, SOLENOID ORIFICE	199K0030	ALL COMPRESSORS	ALL	Order with any Orifice kit

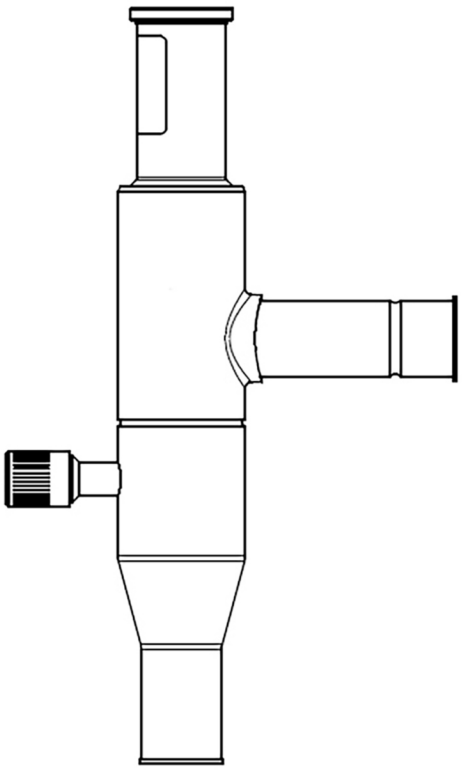
6.16.3 Plunger Assembly



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) PLUNGER ASSY, SOLENOID	100280	ALL COMPRESSORS	ALL	Includes one plunger with hardware, and O-ring **Refer to Note below before purchasing!**
(2) PLUNGER ASSY, SOLENOID	199K0028	• TTS450 • TGS380 • TTH375/TGH285	-H	Includes one plunger, nut, and O-ring **The introduction of this new plunger assembly has been applied starting with the following compressors:** • **TTH375 / TGH285 (S/N 2419950194 and later)** • **TGS380 / TTS450 (S/N 2419950222 and later)** **Refer to Note below before purchasing!**

NOTE
In some cases, the Motor Cooling Solenoid for a compressor manufactured prior to the serial numbers defined may have been upgraded and therefore, verification of the correct replacement parts is necessary. Please refer to Customer Notification B-CN-370 for any additional information regarding the upgrade.

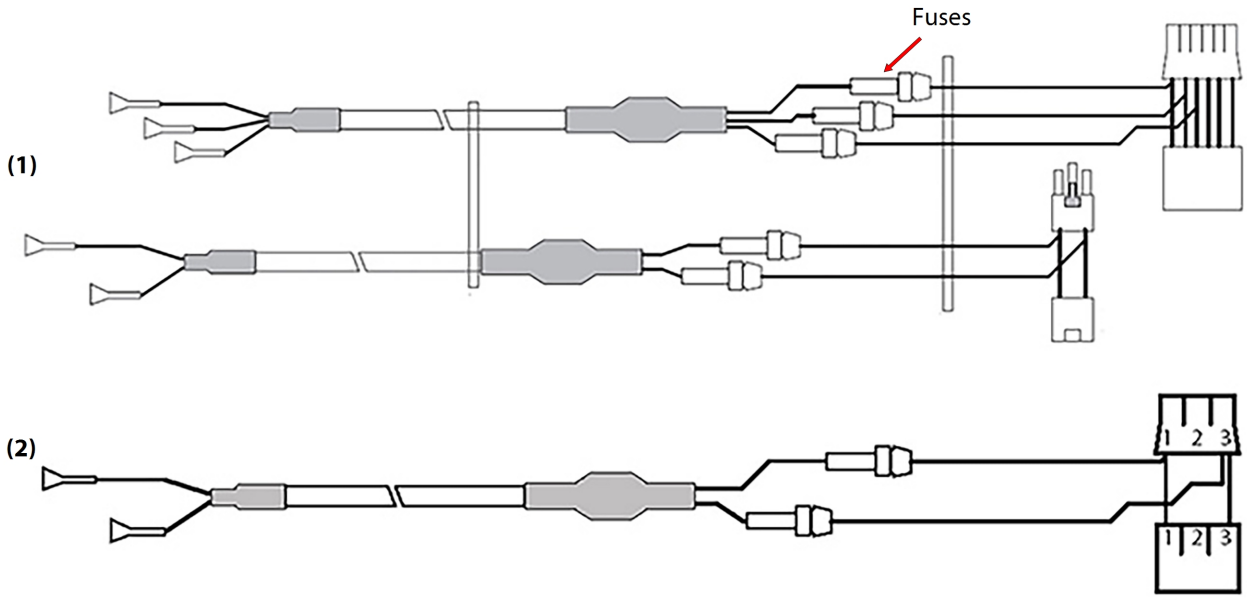
6.17 Pressure Regulating Valve



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
KVP 22 EVAPORATOR PRES REG M/12	034L0025	• TTS300/TGS230 MEDIUM TEMP • TTH375/TGH285 MEDIUM TEMP	ALL	KVP 22, Inlet size [mm]: 22.00, Inlet connection type: SOLDER, ODF, Outlet size [mm]: 22.00, Outlet connection type: SOLDER, ODF

Appendix A Test Equipment

A.1 DC Bus Test Harness



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) DC BUS TEST HARNESS	100326	ALL COMPRESSORS	-N, -P, -A, -C, -D, -E, -F, -G	Cable Only
(2) DC BUS TEST HARNESS	100101	ALL COMPRESSORS	-H (and compressors converted to the Open-Top Soft Start)	Cable Only

A.2 Compact Inverter Tester

The Compact Inverter Tester allows users to verify the inverter is correctly functioning, and to verify the functionality of the inverter control card. Testing can be accomplished without the removal of the inverter assembly.

The Compact Inverter Tester provides all power necessary to interface with the inverter module during testing. This device will test the high voltage section, both top and bottom diodes of each section, and the driver board of the inverter.

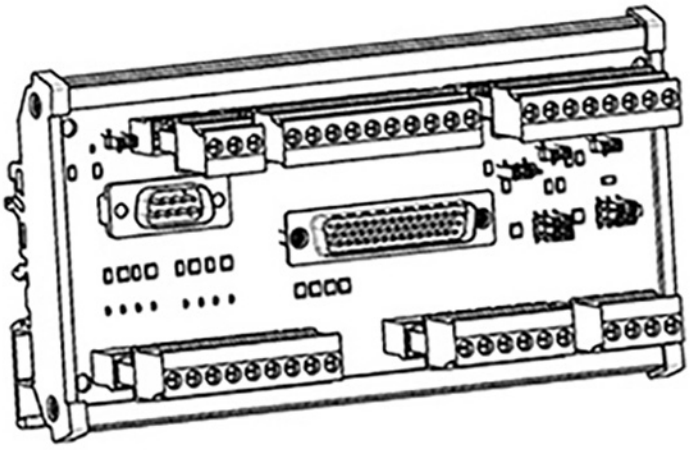
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
COMPACT INVERTER TESTER	100377	ALL COMPRESSORS	ALL	Includes power adapter, AC plug (US and Europe), data cables, and user manual

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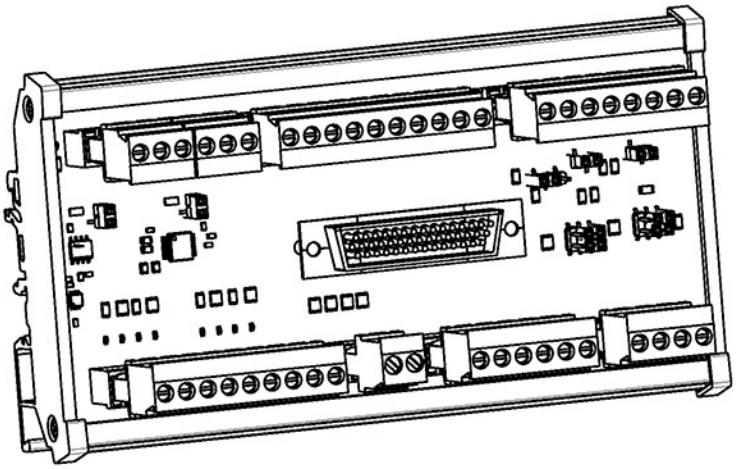
Appendix B Accessory Kits

B.1 I/O Board Assembly

(1)

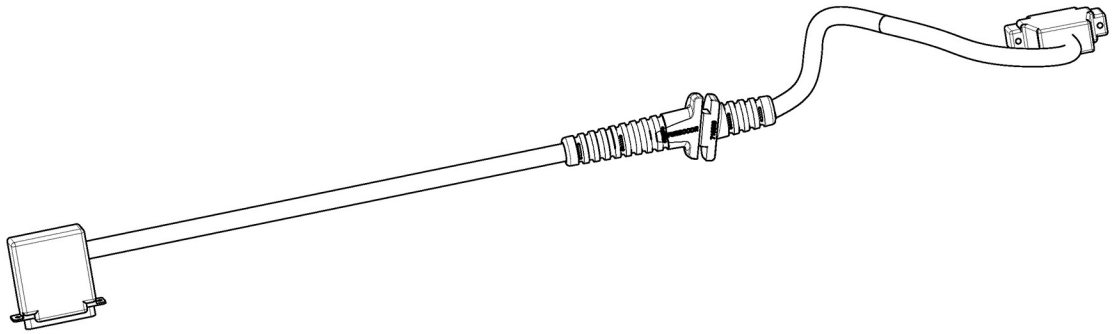


(2)



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
(1) I/O BOARD ASSY	100076-1	ALL COMPRESSORS	ALL	PCB Assembly Only
(2) I/O BOARD ASSY RS485-X2	100410	ALL COMPRESSORS	ALL	Used for TurbocorCloud™ Services Gateway)

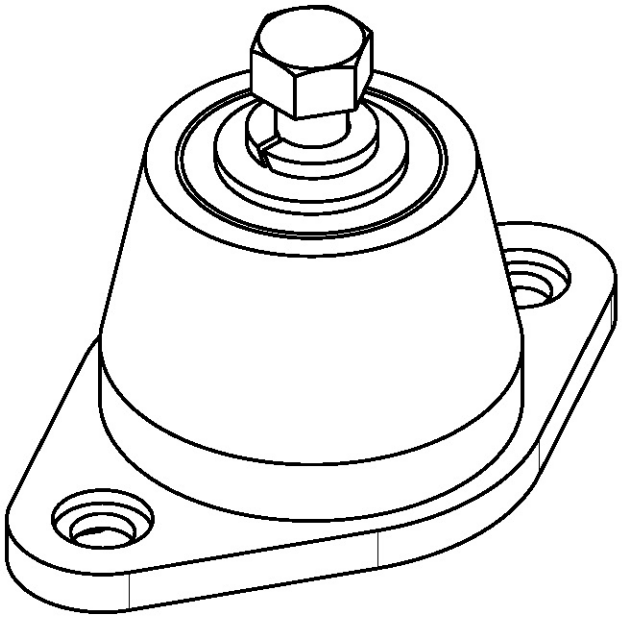
B.2 Compressor Interface Cable



DESCRIPTION	PART NO.	APPLIES	MAJOR REV	COMMENT
COMPRESSOR INTERFACE CABLE, 5M	100058-1	ALL COMPRESSORS	ALL	Cable Only
COMPRESSOR INTERFACE CABLE, 10M	100058-4	ALL COMPRESSORS	ALL	Cable Only
COMPRESSOR INTERFACE CABLE, 20M	100058-5	ALL COMPRESSORS	ALL	Cable Only **(See Note below)**

NOTE
Compressor Interface Cables longer than 10m (32.8 ft) of total length exceed the maximum recommended length and could lead to inconsistent and unreliable performance on communication and stepper motor interfaces. It is recommended to consult DTC Product Support to see if the 20m is appropriate for your application.

B.3 Rubber Mounts

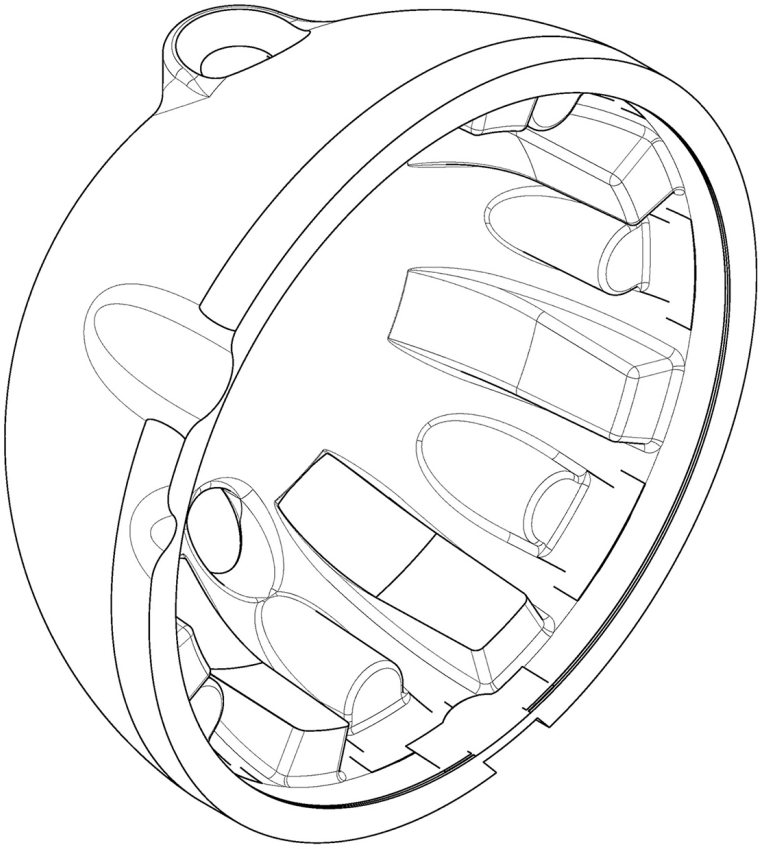


DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
RUBBER MOUNT	100066	ALL COMPRESSORS	ALL	Includes fasteners and washers for mounting compressor to the mount. Rubber mount to chiller fasteners are not included.

Neoprene mountings shall have a maximum static deflection of 0.4" (10mm). All metal surfaces shall be neoprene covered and have friction pads at the bottom. Bolt holes shall be provided on the bottom and a tapped hole and cap screw on top. Aluminum rails shall be used above the mountings under the compressor such as small vent sets to compensate for the overhang.

- Maximum Deflection: 10mm (0.4")
- Material: Neoprene Duro Meter 50
- Tightening Torque: 14 ± 3 Nm (10 ± 4 ft.lb.)
- Capacity Range: 50 -107 kg (110 - 236 lb) EACH

B.4 End Cap Insulation



DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
END CAP INSULATION	100147	ALL COMPRESSORS (Except TTH375/TGH285)	ALL	Includes end cap insulation and silicone adhesive. (Does not apply to TTH375/TGH285 compressors)

The End Bell Kit insulates the compressor's end bell to prevent condensation due to the motor-cooling circuit located on this end of the compressor.

- Size: 11 1/2" diameter
- Flame Class: HF-1
- Compatible with all compressor models
- UL approved
- Material: Polystyrene Grade 54

B.5 EMI/EMC Filters

The Interference/Electromagnetic Compatibility (EMI/EMC) Filter minimizes harmonics in the higher frequency domain (typically above 1kHz). In order for the compressor to be CE-compliant, it should be located between the disconnect switch and the line reactor.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
EMI/EMC FILTER 322A, CE	901866	ALL COMPRESSORS	ALL	Filter only

Specifications

Approved to UL 1283

Max leakage current each line to ground:

- 90mA @ 250VAC 60Hz
- 180mA @ 480VAC 60Hz

Designed to comply to EN 133200. CSA 22.2 No. 8

Hi Pot (1 Min)

L/G 2210VDC

L/L 2780VDC

Rated voltage: up to 480VAC max 50/60Hz (3 Phase)

Hi Pot (1 Min)

A-G, B-G, C-G (3 tests)

A-B, B-C, A-C (3 tests)

Rated current:

- 322A @ 40°C operating ambient temp

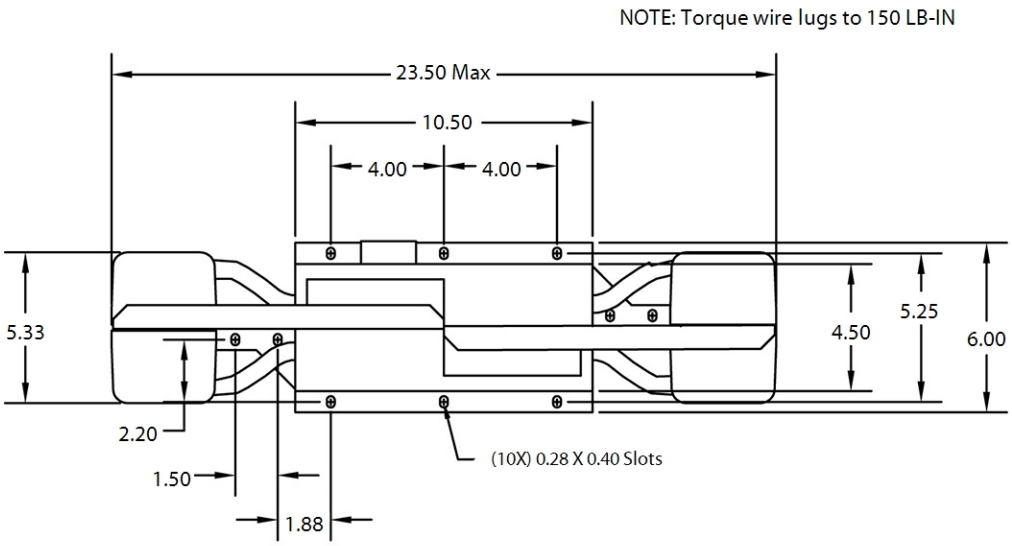
Humidity range: 0-95% R.H.

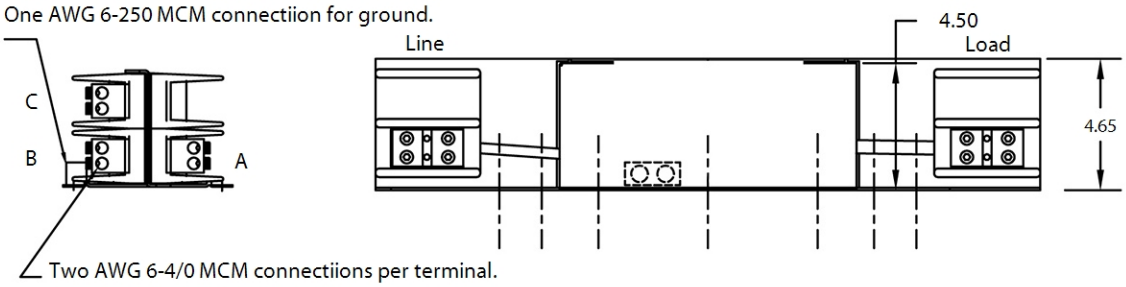
Power dissipation @ rated current: 30W max

Weight: 35 lbs max

EMI/ECI Filters (continued)

901866





B.6 Line Reactors

The line reactor acts as an input buffer between the motor drive power circuits and the AC line power. Line reactors provide additional circuit impedance that improves power factor, reduces line current harmonics, and dampens the transient voltages on the power line, thereby protecting the electronic motor drive components.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
LINE REACTOR 240A - 5%	901832	ALL COMPRESSORS	ALL	Line Reactor only

Specifications

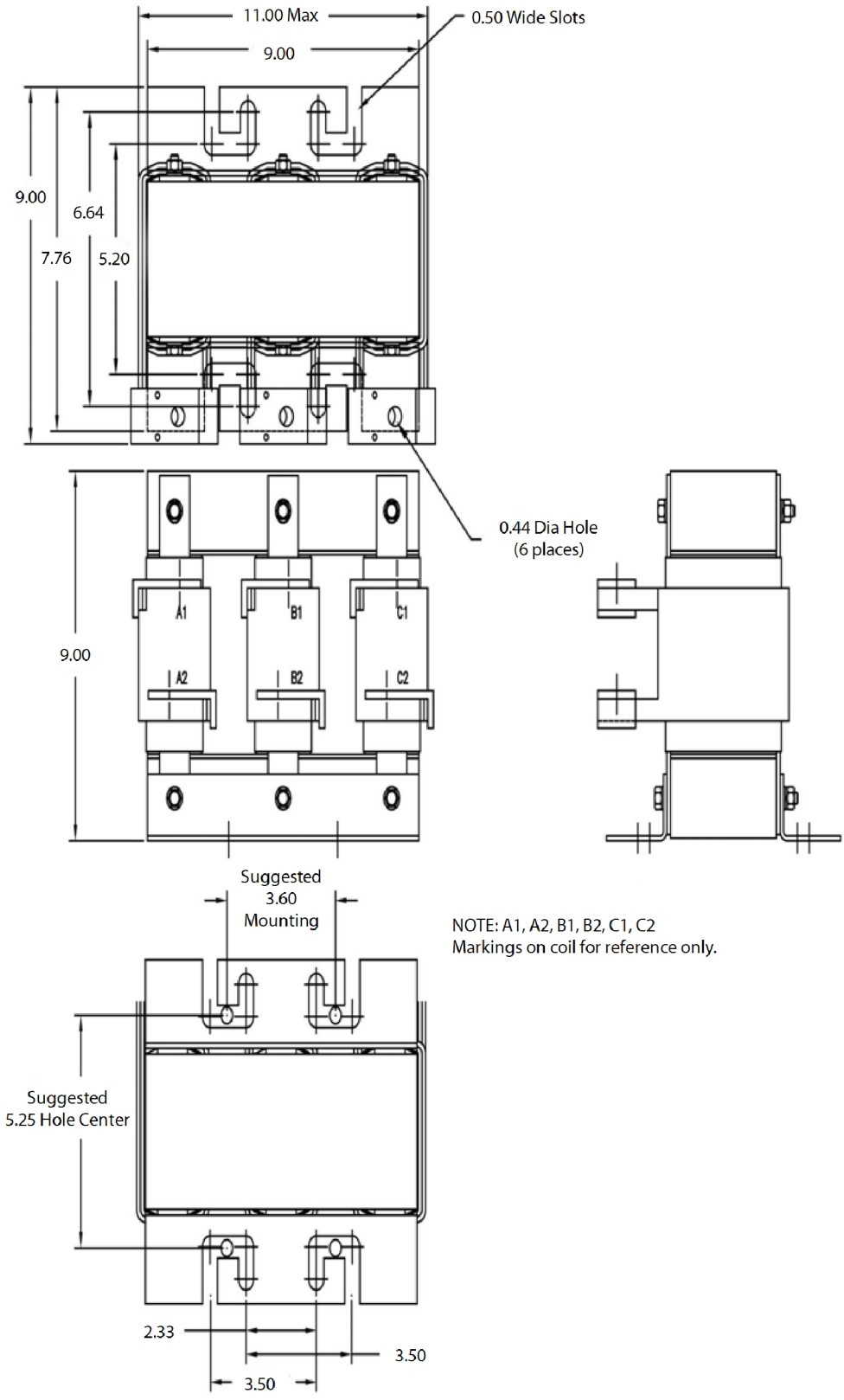
Ambient Temperature Max: 40°C (104°F)
Type: dry, air-cooled, open terminals
Flux density @ rated current: <1.6 tesla
Agency approvals:
Manufactured to UL Standard 508
UL recognized to file # E116124
CSA certified - LR86011
CE marked
Core type: high permeability silicon, non-grain-oriented (N.G.O.), laminated core
Phase/Frequency: 3-phase/ 50/60 Hz
Cooling type: air-cooled
Supply voltage: up to 480Vac (600 Max).

Q factor at rated current, 60 Hz: approx. 22
Rated current: 240A - 5%
Insulation class: Class H - 220
Inductance: 0.50mH ±10%
Dielectric strength tested @: 2.2kVac for 1 minute according to UL508
Total losses, basic current: approx. 500 W
Temp rise @ rated current: <155°C (<279°F)
Dimensions: 229H x 279W x 236D (in mm) 9H x 11W x 9.3D (in inches)
Mass: 43 kg (95 lbs)
Impregnation: dip and bake process to varnish, class H insulation standard
Terminals: copper bus bar, hole to suit M8 bolt

NOTE
Failure to install a line reactor will result in a higher-than-rated current draw, larger cabling requirements, and lower power factor.

Line Reactors (continued)

901832

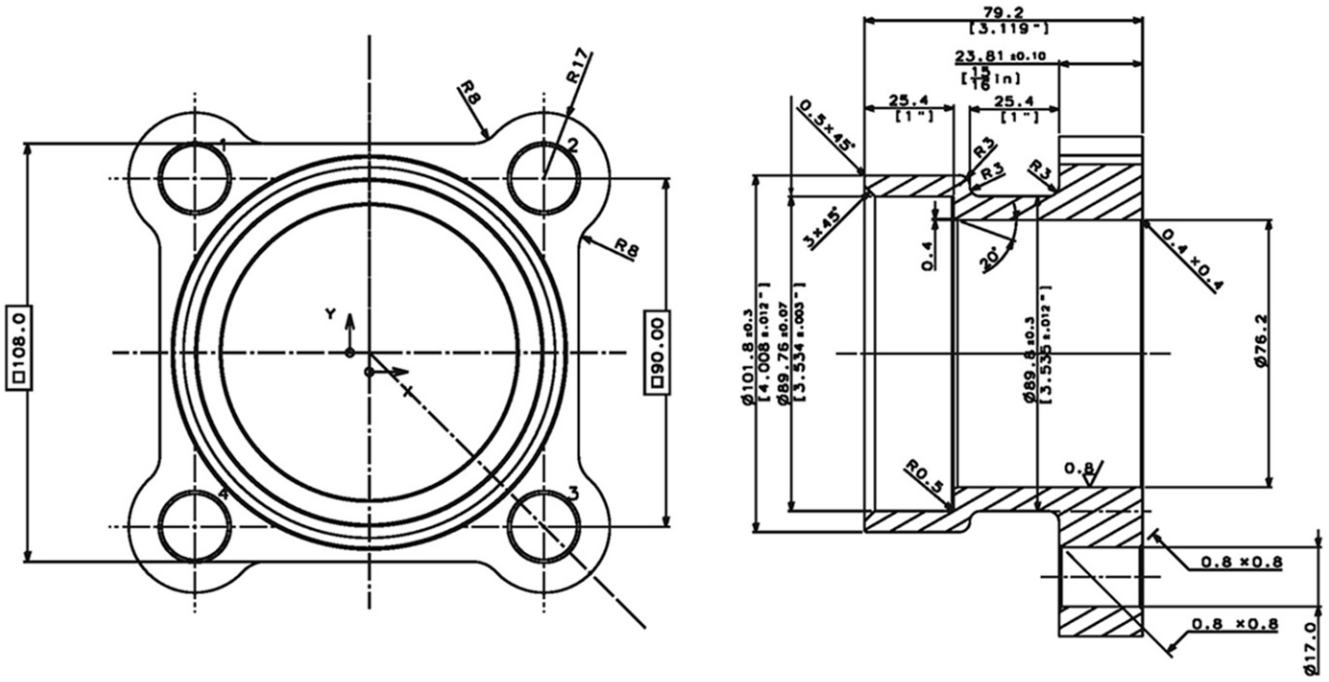


NOTE: A1, A2, B1, B2, C1, C2
Markings on coil for reference only.

B.7 Flanges

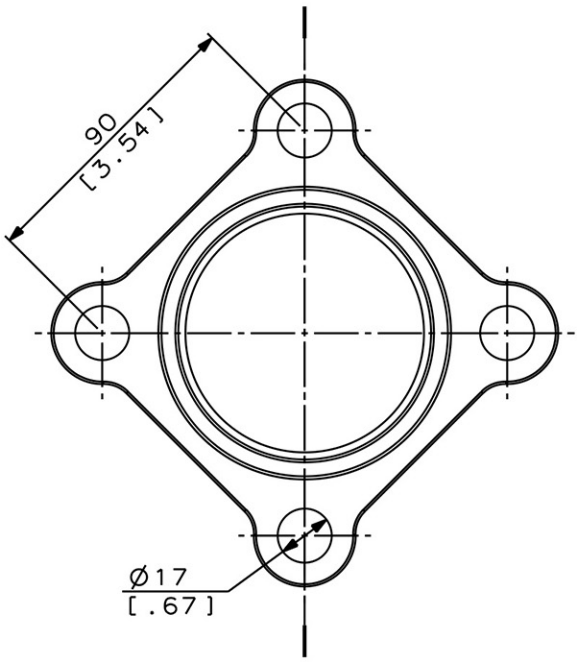
Suction Flange

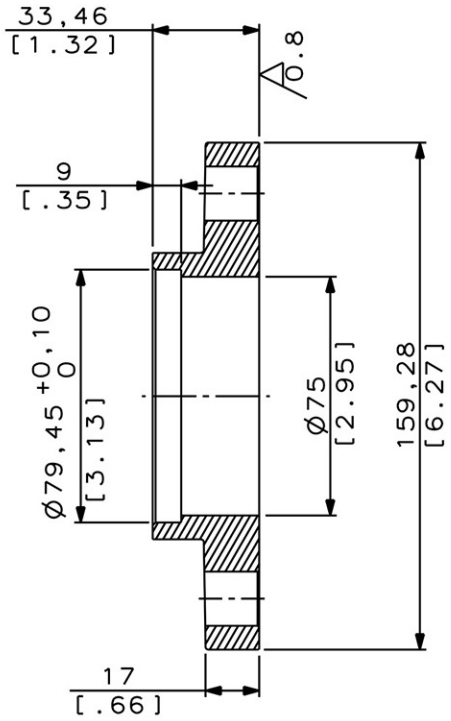
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SUCTION FLANGE, STEEL, 3 IN	100151-1	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390/TGS490 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring



Suction Flange (continued)

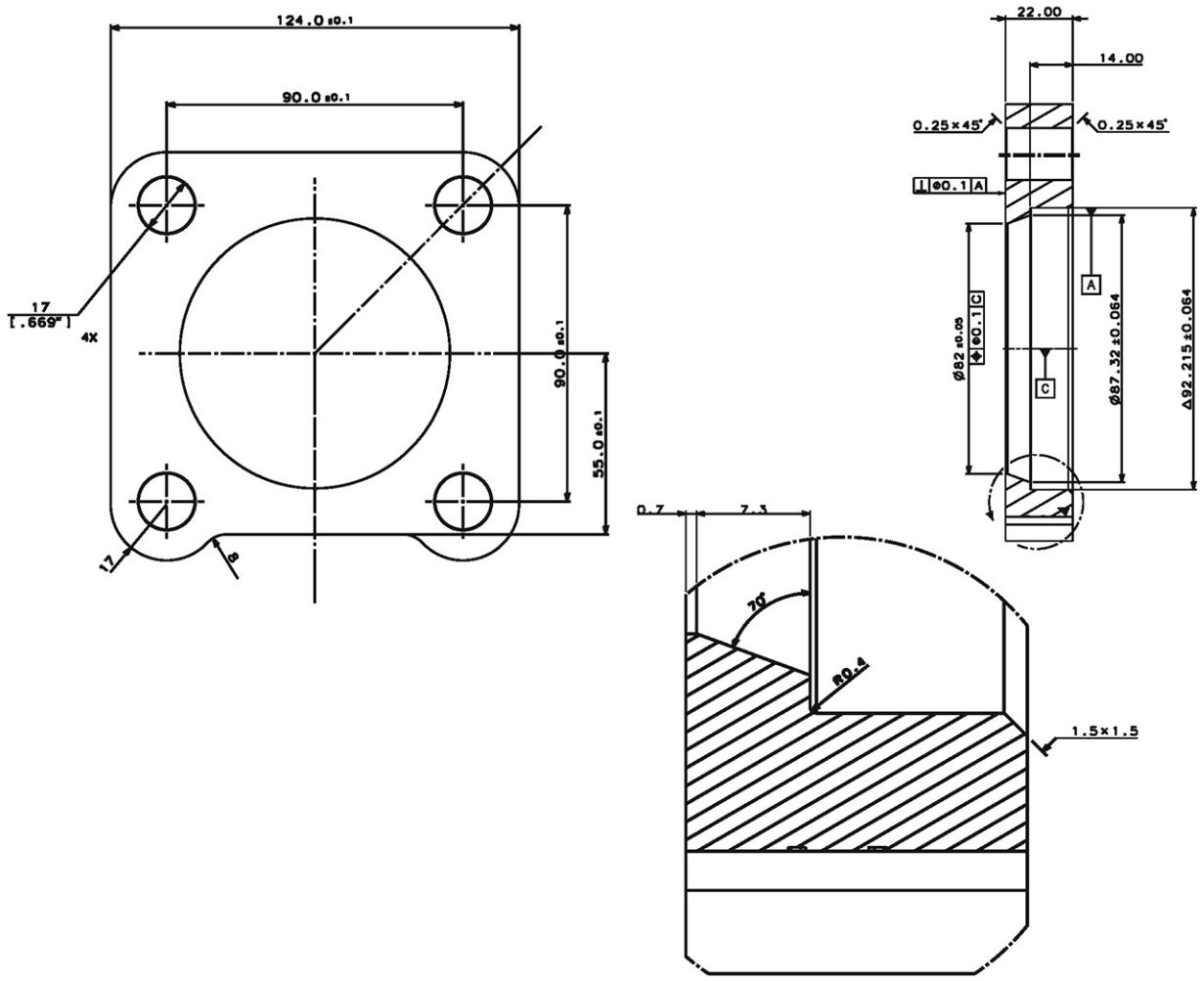
DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SUCTION FLANGE, BRASS, 3 IN	100402-1	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390/TGS490 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring





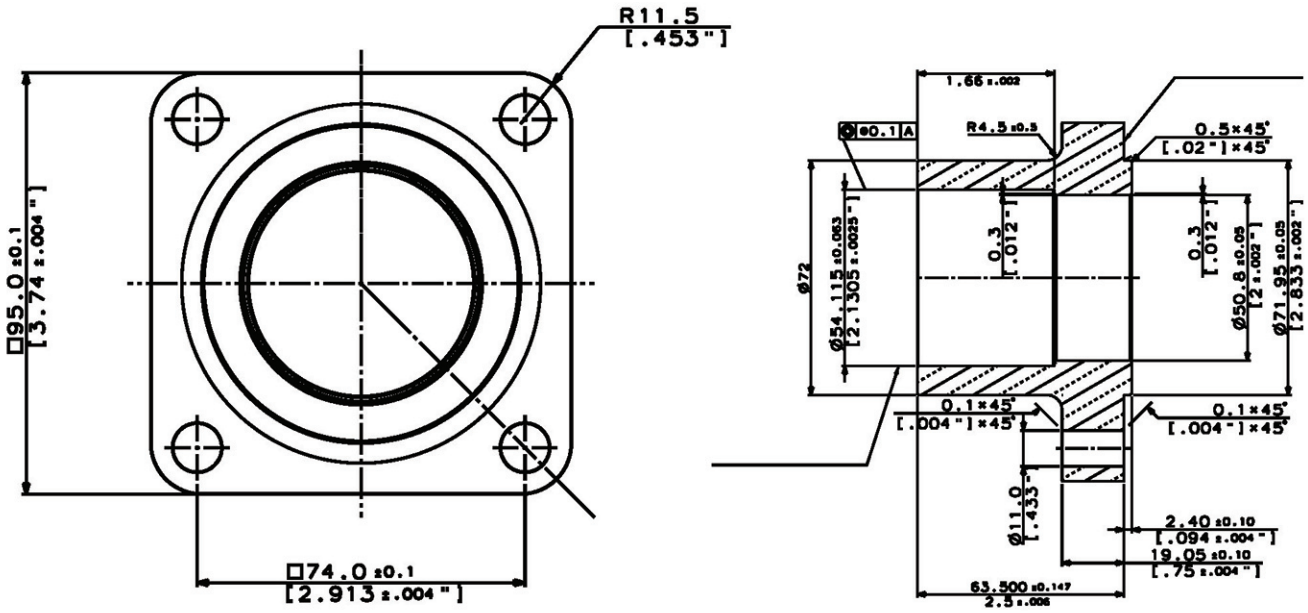
Suction Flange (continued)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
SUCTION FLANGE, BRASS, 3-5/8 IN	100378	• TTS500/TTS700 • TGS520	ALL	Includes flange, fasteners, and O-ring



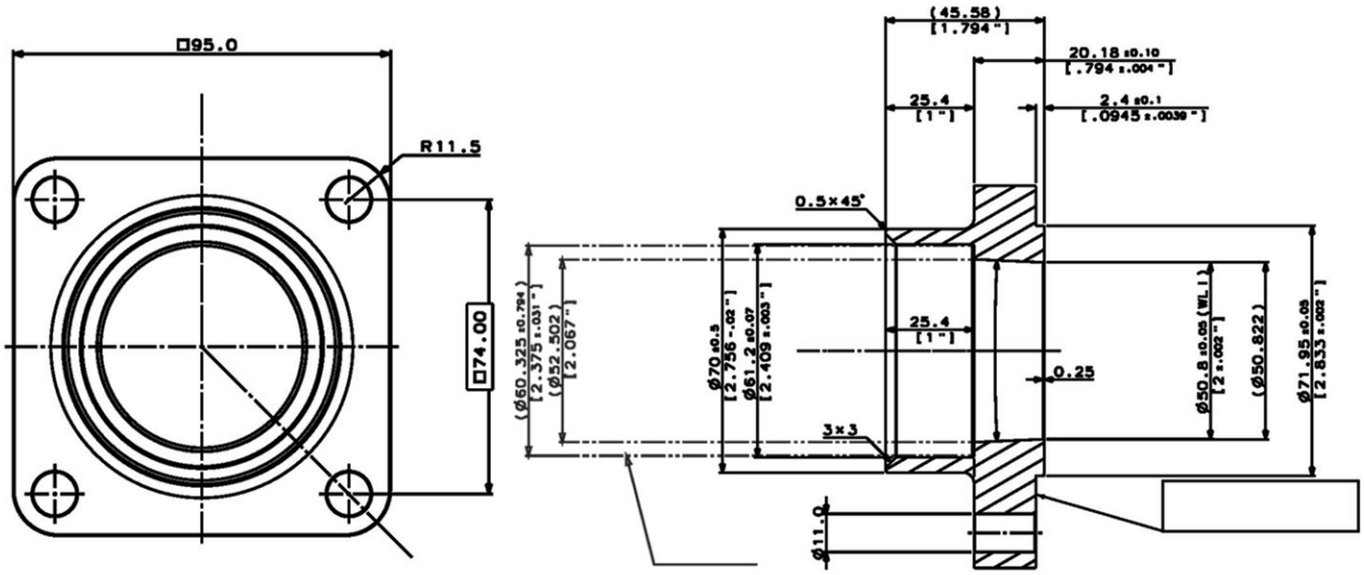
Discharge Flange

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
DISCHARGE FLANGE, BRASS, 2-1/8 IN	100152	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring



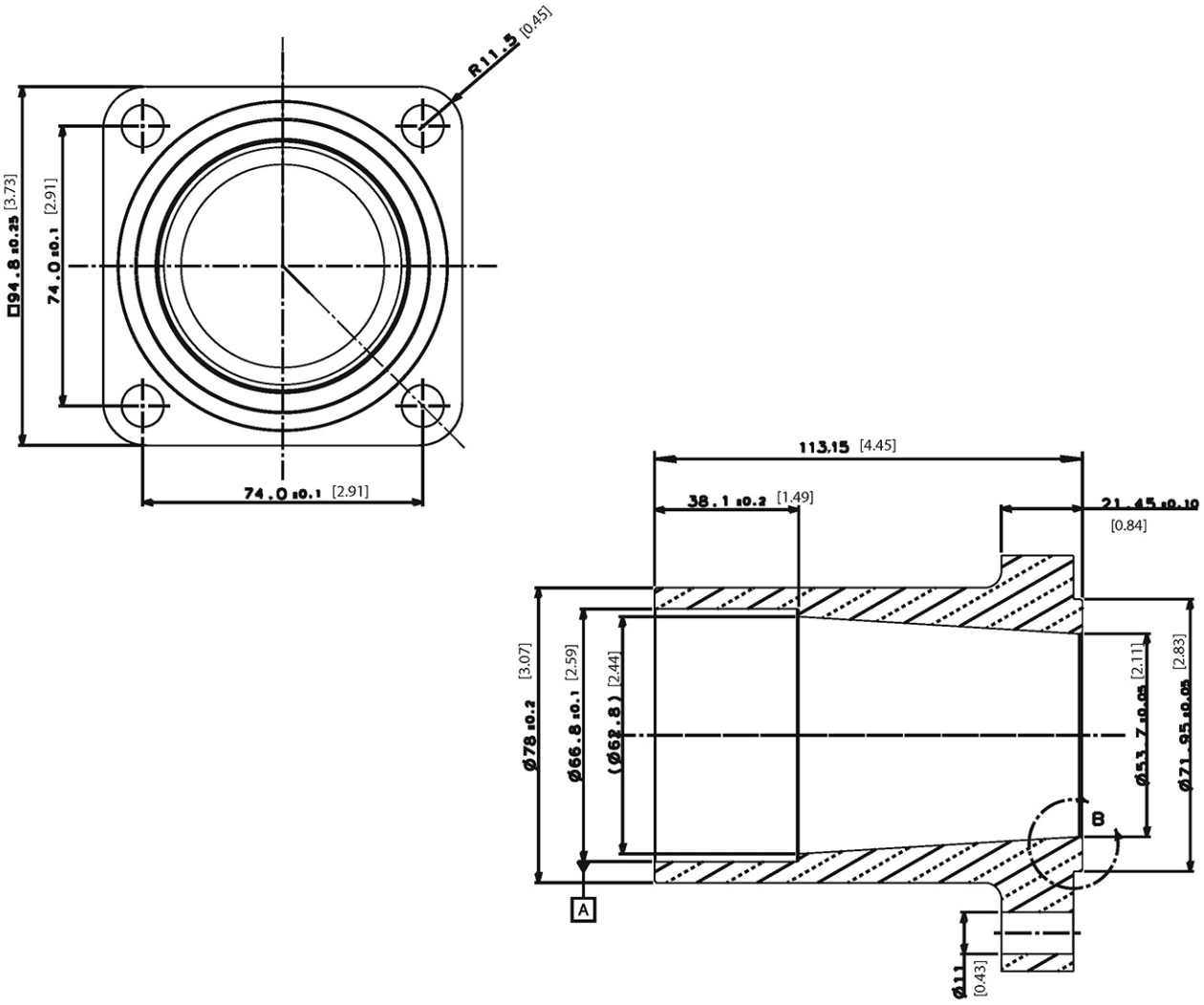
Discharge Flange (continued)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
DISCHARGE FLANGE, STEEL, 2-1/8 IN	100153-1	• TTS300/TTS350/TTS400/TTS450 • TGS230/TGS310/TGS380/TGS390 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring



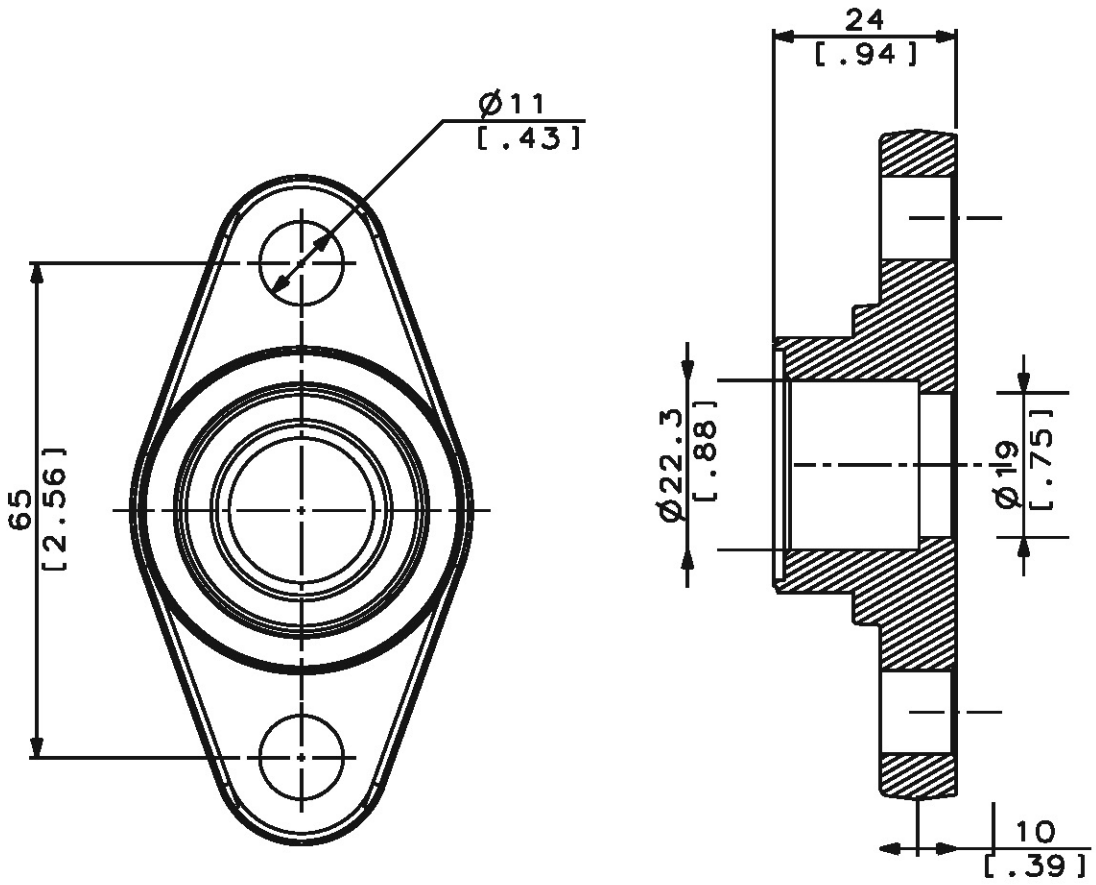
Discharge Flange (continued)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
DISCHARGE FLANGE, BRASS, 2-5/8 IN	100254	• TTS500/TTS700 • TGS490/TGS520	ALL	Includes flange, fasteners, and O-ring



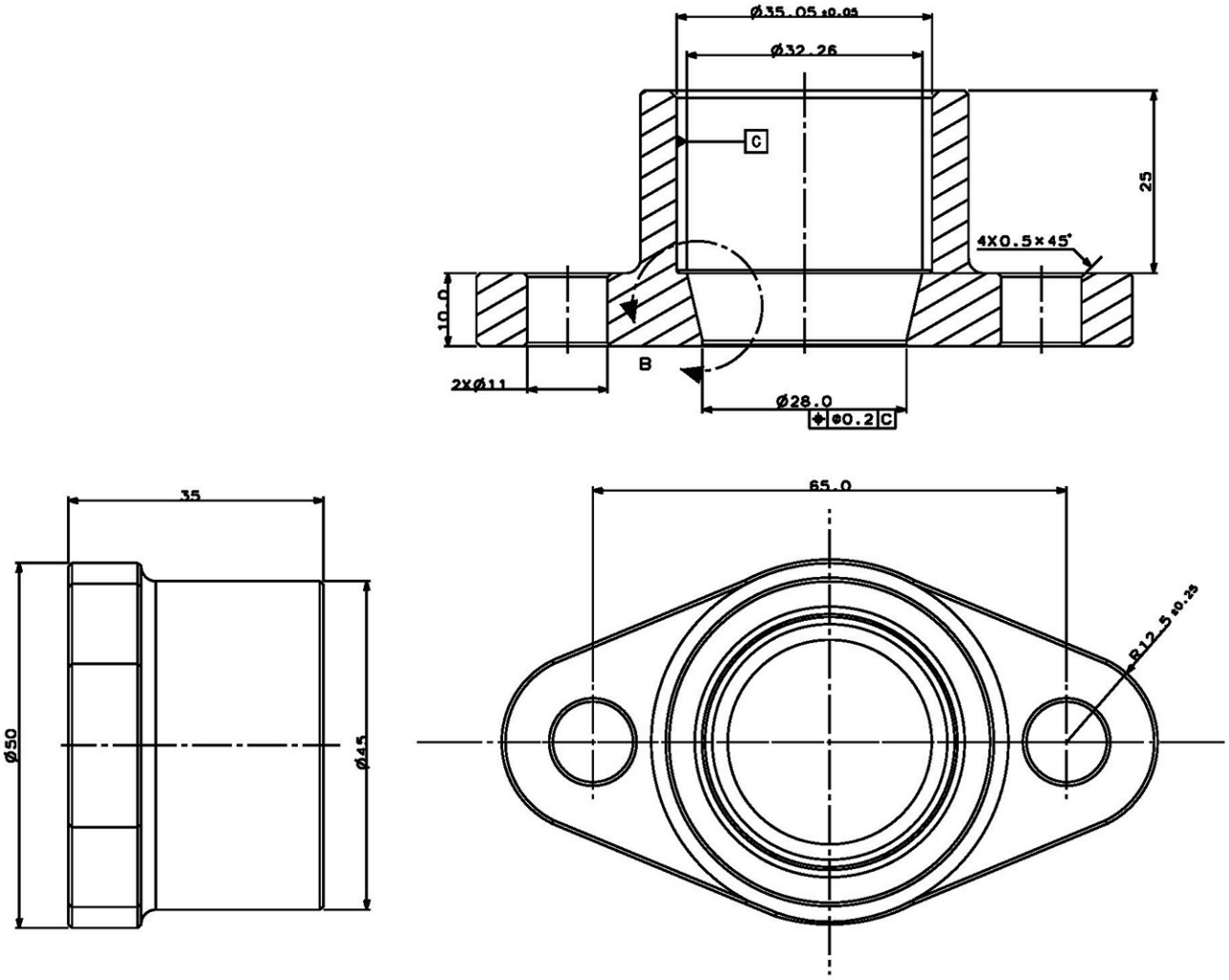
Economizer Flange

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
ECONOMIZER FLANGE, BRASS, 7/8 IN	100400	• TTS300/TG230	ALL	Includes flange, fasteners, and O-ring



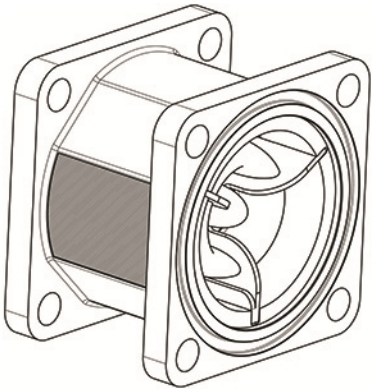
Economizer Flange (continued)

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
ECONOMIZER FLANGE, BRASS, 1-3/8 IN	100450-1	• TTS350/TTS400/TTS450/TTS500/TTS700 • TGS310/TGS380/TGS390/TGS490/TGS520 • TTH375/TGH285	ALL	Includes flange, fasteners, and O-ring

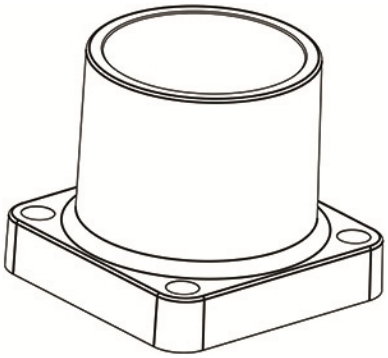


Appendix C Resonator

(1)



(2)

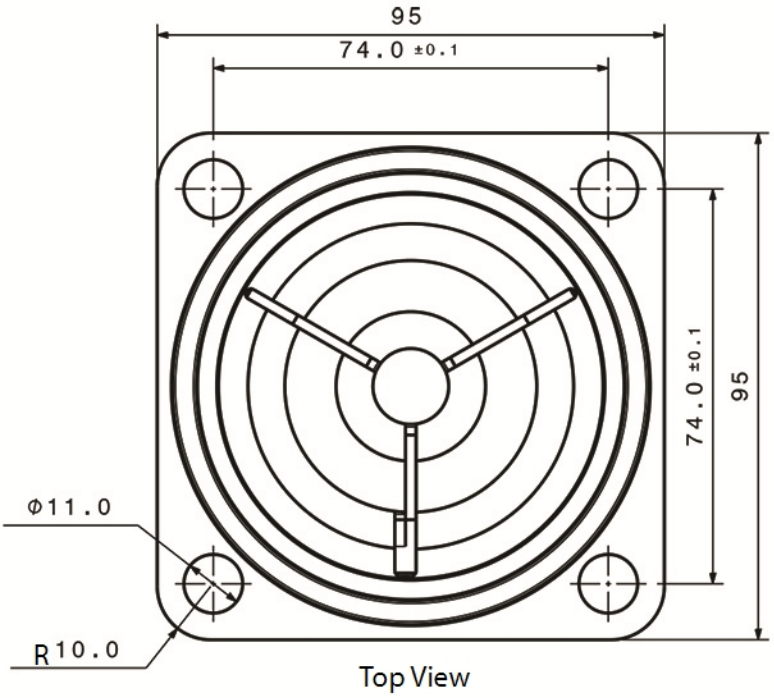


NOTE

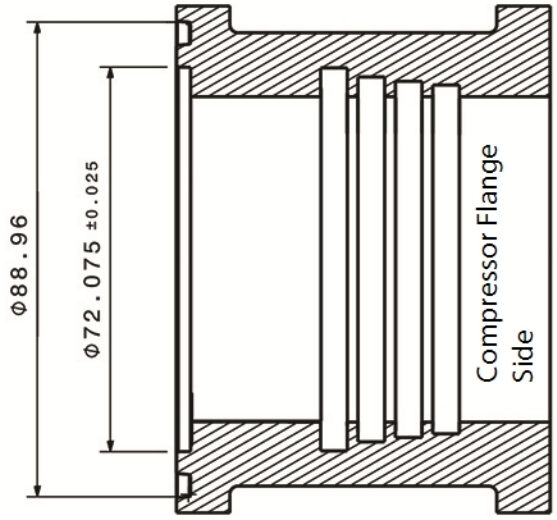
- The Resonator is designed for use with low density HFO-1234ze and R515B refrigerant only.
- Refer to the following two pages for the dimensional drawings for the Resonator and Flange.

DESCRIPTION	PART NO.	APPLIES TO	MAJOR REV	COMMENT
RESONATOR+ HARDWARE	199K0004	• TGS230/TGS310/TGS380/TGS390/ TGS490/TGS520 • TGH285	ALL	Includes Resonator, O-rings, and fasteners
DISCHARGE FLANGE, BRASS (FOR RESONATOR USE)	199K0017	• TGS230/TGS310/TGS380/TGS390/ TGS490/TGS520 • TGH285	ALL	Includes Flange, O-rings, and fasteners Used in combination with the Resonator
RESONATOR, NO HARDWARE	199K0032	• TGS230/TGS310/TGS380/TGS390/ TGS490/TGS520 • TGH285	ALL	Includes Resonator and O-rings Fasteners and hardware not included
HARDWARE (FOR RESONATOR/DISCHARGE FLANGE)	199K0016	• TGS230/TGS310/TGS380/TGS390/ TGS490/TGS520 • TGH285	ALL	Includes O-rings and fasteners

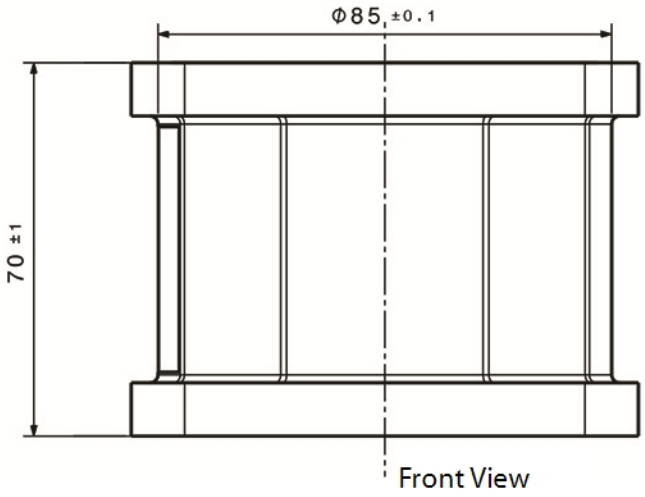
Resonator Dimensional Drawing



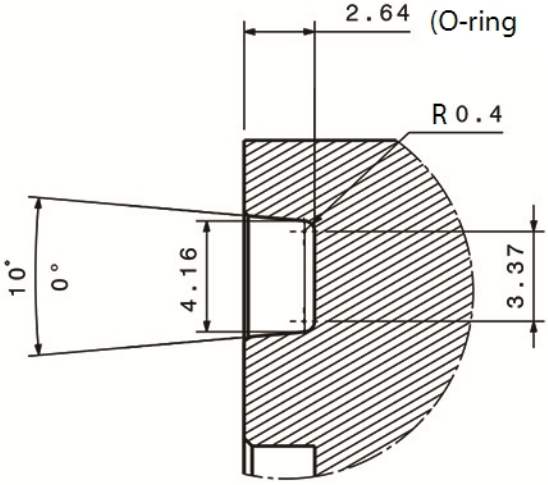
Top View



Section View A-A

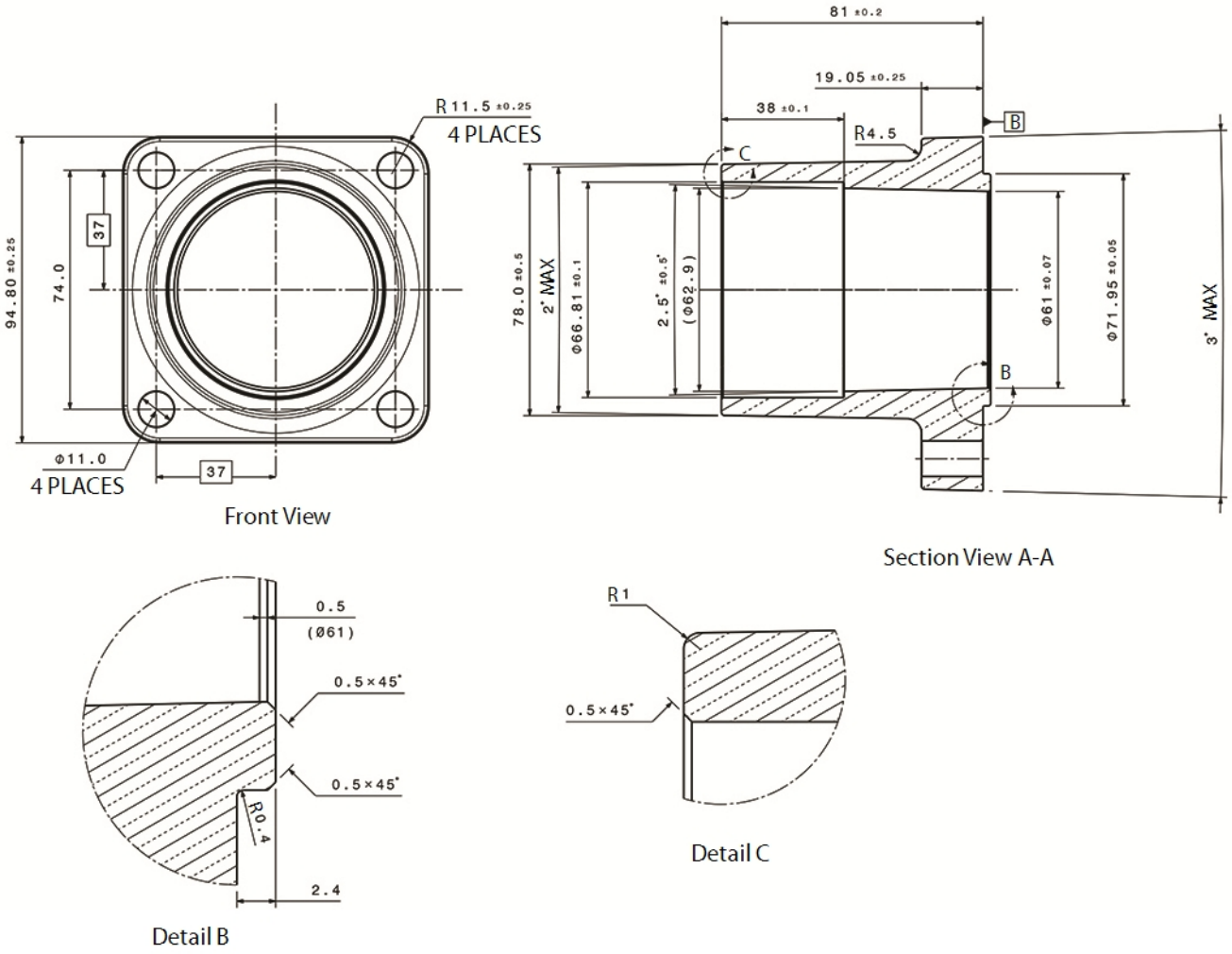


Front View



Detail B

Flange Dimensional Drawing



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Appendix D Obsoleted Kit Reference

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	**DESCRIPTION**	**APPLICATION**	**PART NO./ DESCRIPTION**
100020	SOFT START	TT300 SIE	Kit no longer supported
100020-1	SOFT START (460V)	All 460V models	100020-19 100020-20 Refer to 4.13 Soft Start Assembly for the proper replacement kit
100020-2	SOFT START (575V)	All 575V models	
100020-3	SOFT START (400V)	All 400V models	
100020-4	SOFT START (380V)	All 380V models	
100020-6	SOFT START, REINFORCED UPGRADE (400V)	All reinforced 400V models	
100020-7	SOFT START, REINFORCED UPGRADE (460V)	All reinforced 460V models	
100021	BACKPLANE ASSY	TT300 SIE	Kit no longer supported
100021-1	BACKPLANE ASSY	All models	100021-2
100035	IGV MOTOR SERVICE	TT300 (R22)	Kit no longer supported for R22 applications All others - 100035-1
100036	SENSOR PRESSURE/TEMPERATURE SUCTION	TT300 (R22)	Kit no longer supported for R22 applications All others - 100036-1
100037	SENSOR PRESSURE/TEMPERATURE DISCHARGE	TT300 (R22)	Kit no longer supported for R22 applications All others - 100037-1
100037-1	PRESSURE/TEMP SENSOR, DISCHARGE	ALL COMPRESSORS	100037-2 SENSOR PRESSURE/TEMPERATURE DISCHARGE
100040-1	DC/DC CONVERTER ASSY 380V	TT300 SIE	Kit no longer supported
100040-3	DC-DC CONVERTER ASSY (575)	All 575V Models	100379 DC-DC
100040-4	DC/DC CONVERTER ASSY (SIE) 480 V	TT300 SIE	Kit no longer supported
100040-5	IGBT ASSY MANIFOLD COOLING TT400 C/W DC/DC CONVERTER	All 400 & 460V models	100379 DC-DC
100040-6	DC-DC CONVERTER ASSY (380V)	All 380V models	100379 DC-DC
100043-1	IGBT 310032 PARALLEL COOLING	TT300 SIE	Kit no longer supported
100043-2	IGBT 320032 SERIAL COOLING	TT300 SIE	Kit no longer supported
100043-3	IGBT MANIFOLD COOLING	TT300 Rev:-N, -P, -C, -D, -E, -F	100521 INVERTER ASSY 613 KIT – INVERTER ASSY CONVERSION 342 TO 613 SERIES

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	DESCRIPTION	APPLICATION	PART NO./ DESCRIPTION
100043-5	IGBT ASSY MANIFOLD COOLING TT400 C/W DC/DC CONVERTER	TT350, TT400, TT500 Rev: -P, -A, -C, -E 460V	100043-11 (DC-DC sold separately)
100043-6	IGBT MANIFOLD COOLING - 575V TT 300	TT300 Rev: -P 575V	Kit no longer supported
100043-7	IGBT MANIFOLD COOLING - TT300 R22 SPLIT COOLING	TT300 (R22)	Kit no longer supported
100043-8	IGBT ASSY - SEMIKRON SKiiP 613 TT400C 575V	TT350, TT400, TT500 Rev: -P, -A, -C, -E 380V, 400V, 460V, 575V	100043-11 INVERTER ASSY 613
100043-12	INVERTER ASSY 342	TT300, TG230 Rev: -N, -P, -C, -D, -E, -F	100521 INVERTER ASSY CONVERSION 342 to 613 SERIES
100043-14	24kHz INVERTER ASSY	TT300 (R134a)/TG230 Rev: -N, -P, -C	100521 INVERTER ASSY CONVERSION 342 to 613 SERIES
100044	BUS BAR ASSY AND CAPACITORS 6800µF (460V)	TT300, TG230 Rev: -N, -P, -C, -D, -E, -F	100044-7 BUS BAR ASSY AND CAPACITORS 6800µF (460V)
100044-1	BUS BAR ASSY AND CAPACITORS 4700µF (575V)	TT300, TG230 Rev: -N, -P, -C, -D, -E, -F, -G	100044-8 BUS BAR ASSY AND CAPACITORS 6800µF (460V)
100044-2	BUS BAR ASSY AND CAPACITORS 9000µF (400V)	TT300, TG230 Rev: -N, -P, -C, -D, -E, -F	100044-6 BUS BAR ASSY AND CAPACITORS 6800µF (460V)
100044-3	BUS BAR ASSY AND CAPACITORS 8500µF (460V)	TT350, TT400, TT500, TT700, TG310, TG390, TG520 Rev: -P, -A, -C, -E, -F	100044-12 BUS BAR ASSY AND CAPACITORS 8500µF (460V)
100044-4	BUS BAR ASSY AND CAPACITORS 11000µF (380/400V)	TT400, TG390 Rev: -P, -C, -E, -F	100044-11 BUS BAR ASSY AND CAPACITORS 11000µF 380/400 VAC
100044-5	BUS BAR ASSY AND CAPACITORS 6800µF (575V)	TT400, TG390 Rev: -P, -C, -E, -F	100044-13 BUS BAR ASSY AND CAPACITORS 6800µF (575V)
100050-1	DRIVE ASSY AND O-RING TT300 (SIE,-N)	TT300 SIE, Rev: -N	Kit no longer supported

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	DESCRIPTION	APPLICATION	PART NO./ DESCRIPTION
100050-2	IGV, DRIVE ASSY AND O-RING, R134a EXTENDED RANGE	TT300 Rev: -P, -C, -D, -E, R134a	100050-16 IGV, DRIVE ASSY AND O-RING TT300/TG230
100050-3	IGV, DRIVE ASSY AND O-RING - TT300 RETROFIT	TT300, TG230 Rev: -P, -C, -D, -E	100050-16 IGV, DRIVE ASSY AND O-RING - TT300/ TG230
100050-5	IGV, DRIVE ASSY AND O-RING - R22 RETROFIT	TT300 R22 Rev: -P	Kit no longer supported
100050-6	IGV, DRIVE ASSY AND O-RING - TT400-P	TT400 Rev: -P	Kit no longer supported
100050-7	IGV, HOUSING ASSY AND O-RING - TT400C	TT400 Rev: -C, -E, R134a	100050-17 IGV, DRIVE ASSY AND O-RING TT400/TG390
100050-8	IGV, HOUSING ASSY AND O-RING - TT500	TT500 Rev: -A, -E, R134a	100050-18 IGV, DRIVE ASSY AND O-RING TT700/TG520
100050-9	IGV, HOUSING ASSY - TT350	TT350 Rev: -A, -E, R134a	100050-15 IGV, DRIVE ASSY AND O-RING TT350/TG310
100050-11	IGV, DRIVE ASSY AND O-RING - TT350 RETROFIT	TT350 Rev: -A, -E, R134a	100050-15 IGV, DRIVE ASSY AND O-RING TT350/ TG310
100050-12	IGV, DRIVE ASSY AND O-RING - TT400 - P RETROFIT	TT400 Rev: -P	Kit no longer supported
100050-13	IGV, DRIVE ASSY AND O-RING - TT400 RETROFIT	TT400 Rev: -C, -E	100050-17 IGV, DRIVE ASSY AND O-RING TT400/ TG390
100050-14	IGV, DRIVE ASSY AND O-RING - TT500 RETROFIT	TT500 Rev: -A, -E	100050-18 IGV, DRIVE ASSY AND O-RING TT700/ TG520
100050-24	IGV, DRIVE ASSY AND O-RING TGS490	TGS490 Rev: -F, -H	100050-25 IGV, DRIVE ASSY AND O-RING TGS490
100052	O-RING, END CAP ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100352

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	DESCRIPTION	APPLICATION	PART NO./ DESCRIPTION
100052-1	O-RING, SERVICE SIDE SMALL O-RINGS	TT300 R22	Kit no longer supported for R22 applications All others - 100052-2
100052-2	O-RINGS, SERVICE SIDE, SMALL	All models	199K0031 O-RINGS, SERVICE SIDE, SMALL
100053-2	COVER, CAPACITOR ASSY (BLACK PAINTED) TT300	TT300 Rev: -N, -P, -C	100053-3 COVER, CAPACITOR ASSY (BLACK)
100053-5	CAPACITOR COVER ASSY	TT300 Rev: -N, -P, -C	100053-6 COVER, CAPACITOR ASSY (GREEN)
100054-2	COVER, TOP ASSY (BLACK - PAINTED) TT300	TT300 Rev: -N, -P, -C	100054-3 COVER, TOP ASSY (BLACK)
100054-5	COVER, TOP ASSY STANDARD GREEN	TT300 Rev: -N, -P, -C	100054-6 COVER, TOP ASSY GREEN
100055-2	COVER, SERVICE SIDE ASSY (BLACK PAINTED) TT300	TT300 Rev: -N, -P, -C	100055-3 COVER, SERVICE SIDE ASSY (BLACK)
100055-5	COVER, SERVICE SIDE ASSY - (STANDARD GREEN)	TT300 Rev: -N, -P, -C	100055-6 COVER, SERVICE SIDE ASSY - GREEN
100056-2	COVER, MAINS INPUT ASSY (CONDUCTIVE PAINTED BLACK) TT300	TT300 Rev: -N, -P, -C	100056-3 COVER, MAINS INPUT ASSY (BLACK)
100056-5	COVER, MAINS INPUT ASSY (STANDARD GREEN)	TT300 Rev: -N, -P, -C	100056-6 COVER, MAINS INPUT ASSY (GREEN)
100058-2	CABLE HARNESS-ASSY,COMPRESSOR-INTERFACE (SIE)	TT300 SIE	Kit no longer supported
100062	CABLE HARNESS SOFTSTART AC/DC (SIE) TT300	TT300 SIE	Kit no longer supported
100062-3	CABLE HARNESS SOFTSTART AC/DC - TT350/400/700	TT350/400/700 Rev: -P, -A, -C, -E, -F	100381 CABLE HARNESS SOFTSTART AC/DC
100062-4	CABLE HARNESS SOFTSTART AC/DC (TT300/TG230)	TT300/TG230 Rev: -N, -P, -C, -D, -E, -F, -G	100380 CABLE HARNESS - AC/DC - TT300

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	DESCRIPTION	APPLICATION	PART NO./ DESCRIPTION
100076-2	PCB ASSY COMPRESSOR INT CONNECTOR (SIE)	TT300 SIE	Kit no longer supported
100150	COOLING VALVES ASSY TT300/R22	TT300 R22	Kit no longer supported
100150-1	COOLING VALVES ASSY TT400-P	TT400 Rev: -P	100281-4 COOLING VALVES ASSY TT400 380/400/ 460
100150-3	COOLING VALVES ASSY R134a, TT350 &TT500	TT350, TT500 Rev: -A, -E	TT350-100281-5 TT500-100281-3 COOLING VALVES ASSY TT350 400/460V, TT500
100150-4	COOLING VALVES ASSY R134a, TT400C	TT400 Rev: -C, -E, 380V, 400V, 460V	100281-4 COOLING VALVES ASSY TT400 380/400/ 460
100150-5	COOLING VALVES ASS 134a, TT400C 575C	TT400 Rev: -C, -E, 575V	100281-1 COOLING VALVES ASSEMBLY TT400 (575V), TG310
100150-6	KIT, COOLING VALVES ASSY	TTS400 575V TGS310	100281-1 COOLING VALVES ASSY
100150-7	KIT, COOLING VALVES ASSY R134a, TT350, 380V	TT350 Rev: -A, -E, 380V	100281-5 COOLING VALVES ASSY TT350 380V
100150-8	COOLING VALVES ASSY TT300	TTS300 TGS230	100281-2 COOLING VALVES ASSY TT300
100150-9	COOLING VALVES ASSY	TTS500 TTS700 TGS520	100281-3 COOLING VALVES ASSY
100150-10	COOLING VALVES ASSY TT400	TTS400 380V, 400V & 460V TGS390	100281-4 COOLING VALVES ASSY TT400
100150-11	COOLING VALVES ASSY	TTS350 TGS490 TTH375 TGH285	100281-5 COOLING VALVES ASSY
100150-12	COOLING VALVES ASSY	TTH375 TGH285	100281-5 COOLING VALVES ASSY
100151	SUCTION FLANGE (STEEL)	TT300, TT350, TT400 Ref: R134a	100151-1 SUCTION FLANGE (STEEL)
100153	DISCHARGE FLANGE (STEEL)	TT350, TT400, TG310, TG390	100153-1 DISCHARGE FLANGE (STEEL)

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	DESCRIPTION	APPLICATION	PART NO./ DESCRIPTION
100155	O-RING SUCTION PORT	TT300 R22	Kit no longer supported for R22 applications All others - 100051-1
100169	ADAPTER SCREEN FITTING ASSY	TT300, TT350, TT400, TT500 Rev: -E	100169-1 COMPRESSOR COOLING ADAPTER WITH STRAINER
100186	STRAINER, COOLING LINE ADAPTER, SCREEN FITTING	TT300, TT350, TT400, TT500 Rev: -E	100186-1 STRAINER
100196-1	CAVITY TEMP SENSOR TT300,TT350 & TT400	TT300, TT350, TT400 Rev: -E	100196-3 CAVITY TEMP SENSOR
100215	COOLING FITTING AND STRAINER	TTS300 Rev: -N, -P, -C, -D	Kit no longer supported Parker fitting P/N 48F-6-4 or equivalent. Refer to the specifications below: • Brass 45° flare fitting • Connection 1 tube o.d. (inch): 3/8 • Connection 2 thread size (inch): 1/4 • Style: flare to NPT
100223-4	IGV HOUSING	TT300/TT350/ TT400/TG230/TG390 Retrofit compressors	100223 IGV HOUSING
100224	IGV HOUSING, TT300 (SIE, -N, R22)	TT300 SIE Rev: -N	Kit no longer supported
100224-4	IGV HOUSING, TT300 (SIE, -N, R22)	TT300 SIE Rev: -N	Kit no longer supported
100226	IGV THROAT, TT300 (SIE, -N, -P-6%)	SIE Rev: -N	Kit no longer supported
100229-4	IGV HOUSING TT500/TT700/TG520	TT500/TT700/TG520 Retrofit compressors	100229 IGV HOUSING TT500/TT700/ TG520
100230	IGV THROAT, TT400P	TT400 Rev: -P	Kit no longer supported
100233	PLUNGER ASSY, SOLENOID	Use with TT300 R22/ TT400 Rev: -P	Kit no longer supported for R22 applications All others - 100280

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	DESCRIPTION	APPLICATION	PART NO./ DESCRIPTION
100234	SOFT START COOLING FAN ASSY	All models	100373 COOLING FAN AND ADAPTOR ASSY
100235	PLUNGER ASSY, SOLENOID	All models	100280 PLUNGER ASSY, SOLENOID
100237	ORIFICE BODY, COOLING 1.5MM	TT400 Rev: -P	100240 ORIFICE BODY, COOLING 1.6MM
100241	O-RING SOLENOID ORIFICE	TT300 R22	Kit no longer supported
100242	O-RING, SOLENOID ORIFICE	All models	199K0030 O-RING, SOLENOID ORIFICE
100250	IGV THROAT, TGS490	TGS490 Rev: -F, -H	100261 IGV THROAT, TGS490
100272	COMPRESSOR CONTROLLER (SIE)	TT300 SIE	Kit no longer supported
100281-5	COOLING VALVE ASSY	TTS350, TTS450, TGS285, TGS380, TGS490, TTH375	199K0029 COOLING VALVE ASSY
100293	HERMETIC FEEDTHROUGH FRONT BEARING - 4 PIN	TT300 R22	Kit no longer supported for R22 applications All others - 100293-1
100294	HERMETIC FEEDTHROUGH REAR BEARING - 6 PIN	TT300 R22	Kit no longer supported for R22 applications All others - 100294-1
100295	HERMETIC FEEDTHROUGH BEARING - 9 PIN	TT300 R22	Kit no longer supported for R22 applications All others - 100295-1
100309	HEATSINK, COOLING MANIFOLD SCR ASSY	TT300 Rev: -N, -P, -A, -C, -D, -E, R134a	100309-11 HEATSINK COOLING MANIFOLD SCR ASSY
100309-1	HEATSINK, COOLING MANIFOLD SCR ASSY (TT400)	TT350, TT400, TT500 Rev: -P, -A, -C, -E	100309-13 HEATSINK COOLING MANIFOLD SCR ASSY
100309-2	HEATSINK, COOLING MANIFOLD SCR ASSY	TT300 R22	Kit no longer supported
100309-3	DIODE HEATSINK, SERIAL COOLING (SIE)	TT300 SIE	Kit no longer supported
100309-4	DIODE HEATSINK, PARALLEL COOLING (SIE)	TT300 SIE	Kit no longer supported

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	DESCRIPTION	APPLICATION	PART NO./ DESCRIPTION
100309-5	HEATSINK COOLING MANIFOLD SCR ASSY	TTS350, TTS400, TTS500, TTS700, TGS310, TGS390, TGS490, TGS520 Rev: -P, -A, -C, -E, -F	100309-13 HEATSINK, COOLING MANIFOLD SCR ASSY (TT350) NO SENSOR
100309-6	HEATSINK COOLING MANIFOLD SCR ASSY	TTS300/TGS230 Rev: -N, -P, -C, -D, -E, -F, -G	100309-11 HEATSINK, COOLING MANIFOLD SCR ASSY
100309-9	SCR COOLING MANIFOLD	TTS350, TTS400, TTS700, TGS310, TGS390, TGS490, TGS520 Rev: -H	199K0024 SCR COOLING MANIFOLD
100309-15	SCR COOLING MANIFOLD	TGS380/TTS450	199K0024 SCR COOLING MANIFOLD
100310	O-RING, IGBT ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100310-2
100312	HERMETIC FEEDTHROUGH HIGH POWER NEOPRENE	TT300 R22	Kit no longer supported for R22 applications All others - 100383
100312-1	HERMETIC FEEDTHROUGH HIGH POWER EPDM	All models	Kit no longer supported for R22 applications All others - 100383
100314	COVER PLATE ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100314-2
100315	O-RING, COVER PLATE ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100315-1
100321	HERMETIC FEEDTHROUGH IGV 4 PIN	TT300 R22	Kit no longer supported R22 All others - 100321-1
100322	CABLE HARNESS COMPRESSOR CONTROLLER	All models	100322-5 CABLE HARNESS COMPRESSOR CONTROLLER
100322-2	CABLE HARNESS COMPRESSOR CONTROLLER (SIE)	TT300 SIE	Kit no longer supported
100322-3	CABLE HARNESS COMPRESSOR CONTROLLER (SIE)	TT300 SIE	Kit no longer supported
100323-1	CABLE HARNESS COMPRESSOR DC SUPPLY(SIE)	TT300 SIE	Kit no longer supported

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	DESCRIPTION	APPLICATION	PART NO./ DESCRIPTION
100324	END CAP ASSY	TT300 R22	Kit no longer supported for R22 applications All others - 100324-2
100326-1	CABLE HARNESS DC BUS TEST LEAD (SIE)	TT300 SIE	Kit no longer supported
100327	O-RING COOLING PORTS, SUCTION, DISCHARGE, ECONOMIZER, MOTOR COOLING	TT300 R22	Kit no longer supported for R22 applications All others - 100329
100373	COOLING FAN AND ADAPTOR ASSY	All models	100373-1 COOLING FAN AND ADAPTOR ASSY
100374	R513A REFRIGERANT LABEL	TTS300/TTS350/TTS400/TTS500/TTS700/TTH375 Rev: -F, -G, -H	199K0002 & 199K0003 R134a-R513A LABELS/R1234ze-R515B LABELS
100375	HARMONIC RESISTOR PLUG	All models	Kit no longer supported
100381-1	HIGH-POWER FEEDTHROUGH	All models	Kit no longer supported for R22 applications All others - 100383
100402	SUCTION FLANGE KIT (BRASS)	TT300, TT350, TT400 R134a	100402-1 SUCTION FLANGE (BRASS)
100414	ECONOMIZER VALVE KIT 7/8"	TT300 R134a	Kit no longer supported
100417-1	INVERTER SNUBBER CAPACITOR, 0.47µF, 1250VDC	TTS350/TTS400/TTS450/TTS500/TTS700TGS310/TGS380/ TGS390/TGS490/ TGS520/TTH375/TGH285	100417-2 INVERTER SNUBBER CAPACITOR, 0.47µF, 1250VDC
100419	PLUNGER ASSEMBLY, NON-RETURN VALVE	TT300	Kit no longer supported
100420	FUSE 4 AMP (SIE) (TT300)	TT300 SIE	Kit no longer supported
100450	ECONOMIZER FLANGE KIT 1 3/8" (BRASS)	All except TT300 and TG230	100450-1 ECONOMIZER FLANGE 1 3/8" (BRASS)
100455	SUCTION FLANGE 3 5/8" (BRASS)	TT500, TT700, TG520	100378 SUCTION BRASS FLANGE FOR 3-5/8" COPPER PIPE TT500 (EPDM O-ring)
100472	SUCTION STRAINER KIT	All models	Kit no longer supported

OBSOLETE KIT			REPLACEMENT KIT
PART NO.	DESCRIPTION	APPLICATION	PART NO./ DESCRIPTION
100514	CONVERSION-SIE TO THE CURRENT ELECTRONICS (400V)	All 400V SIE models	Kit no longer supported
100515	CONVERSION-SIE TO THE CURRENT ELECTRONICS (400V)	All 400V SIE models	Kit no longer supported
100516	CONVERSION-SIE TO THE CURRENT ELECTRONICS (460V)	All 460V SIE models	Kit no longer supported
100517	CONVERSION-SIE TO THE CURRENT ELECTRONICS (460V)	All 460V SIE models	Kit no longer supported
100518	INVERTER DRIVER BOARD, 613	TTS350/TTS400/TTS450/TTS500/TTS700 TGS310/TGS380/TGS390/TGS490/TGS520 TTH375/TGS285	Required Inverter Assembly Refer to 4.5 Inverter for the proper replacement kit
100518-1	INVERTER DRIVER BOARD, 613	TTS300/TGS230	Required Inverter Assembly Refer to 4.5 Inverter for the proper replacement kit
100555	O-RING, SUCTION PORT	All models	100329 O-RINGS, PORT CONNECTIONS
100580	PORTABLE TRAINING SIMULATOR	All models	N/A - Contact Applications & Product Support team to request a Simulator
100703-1	INTERSTAGE PIPE	TTH375/TGH285 Rev: -F, -H	Order Kit 100703-3 and 100706-3
100706-1	SECOND STAGE HOUSING	TTH375/TGH285 Rev: -F, -H	Order Kit 100703-3 and 100706-3
901453	LINE REACTOR 140A - 10%	TTS300/TGS230	901832 LINE REACTOR 240A - 5%
901666	EMI FILTER (CE) 185A	All models	901866 EMI/EMC FILTER (CE) 322A
901974	LINE REACTOR 140A - 5%	TTS300/TGS230	901832 LINE REACTOR 240A - 5%
901975	LINE REACTOR 180A - 5%	All models	901832 LINE REACTOR 240A - 5%

ENGINEERING TOMORROW

Quick access to Danfoss Turbocor® compressor **troubleshooting.**

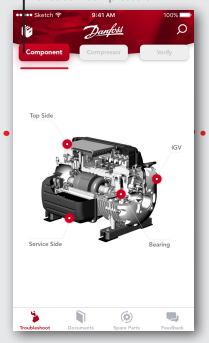
The new version of the **Danfoss TurboTool® 2.0** app for all your full service Danfoss Turbocor® compressor needs.

24/7
Access to Danfoss Turbocor® compressor troubleshooting on site

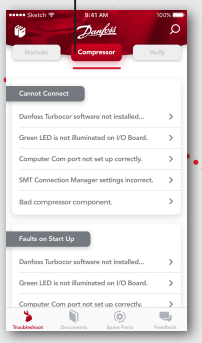


Troubleshoot

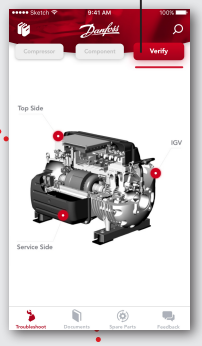
The TurboTool® app makes it easy for technicians to troubleshoot issues on Danfoss Turbocor® compressors.



The user can select from a list of symptoms in the app that match the problems exhibited by the compressor being serviced. The app will then list potential causes, solutions to the problem, and service literature to reference for further information.

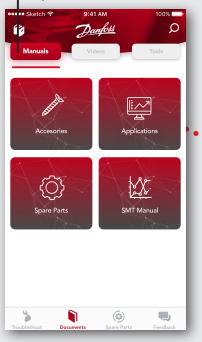


The app provides the correct operating parameters for key components: no need to keep reference documents on hand.

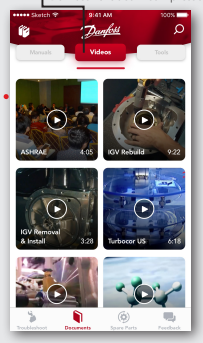


Documents & Video

You no longer need to keep hundreds of pages of parts catalogs and training manuals. With the app, all of this information is at your fingertips on your smart device.

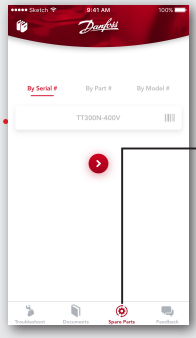


With the app, you can access videos made by Danfoss Turbocor® that demonstrate how to remove, install, and rebuild key components on Danfoss Turbocor® compressors.





Spare Parts



TurboTool® helps you to quickly identify the required spare parts. A quick scan of the compressor serial # using your smartphone camera or by entering the part # or model #, and the app will display potential spare parts kits.

Download the 2.0 app today!

Scan to download app

www.turbocor.danfoss.com | TURBOCOR®

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Boost your **Turbocor®** knowledge

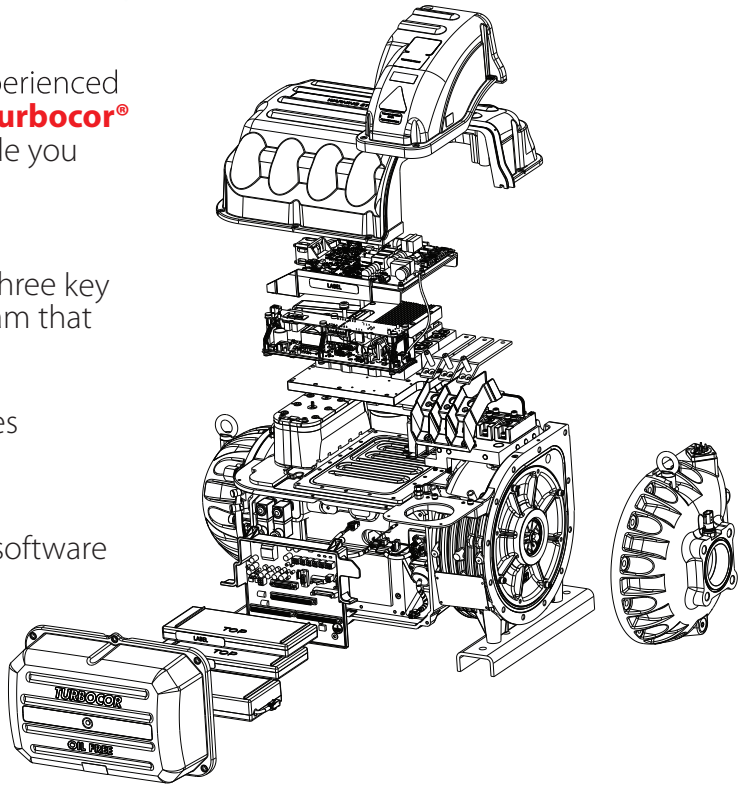
The Danfoss Turbocor® Training Program - Service, Maintenance, and Troubleshooting

- Online and face-to-face training modules
- Discover the advantages of oil-free technology
- Go hands-on with a Turbocor compressor
- Master the Turbocor monitoring software
- Interact directly with Danfoss experts

Highly qualified and field-experienced instructors of the **Danfoss Turbocor® Learning Center** will provide you with a high level of training.

Attendees will be trained in three key areas of the Turbocor® program that includes:

- Practical classroom courses
- Hands-on compressor demonstrations
- Service Monitoring Tools software applications



Join us for the next **Turbocor® Training** class. Scan the code to see our schedule and **register today!**

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Danfoss Commercial Compressors

is a worldwide manufacturer of compressors and condensing units for refrigeration and HVAC applications. With a wide range of high quality and innovative products, we help your company to find the bast possible energy efficient solution that respects the environment and reduces the total life cycle costs.

We have over 40 years within the development of hermetic compressors which has brought us amongst the global leaders in our business, and has positioned us as distinct variable speed technology specialists. Today we operate from engineering and manufacturing facilities spanning across three continents.



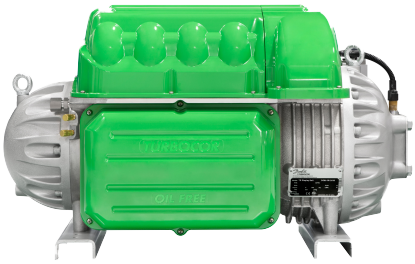
TTS Compressors



TTH Compressors



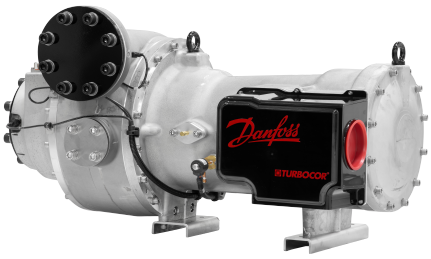
VTX1600 Compressors



TGS Compressors



TTH Compressors



VTX1600 Compressors

Our products can be found in a variety of applications such as rooftops, chillers, residential air conditioners, heatpumps, coldrooms, supermarkets, milk tank cooling and industrial processes.

http://turbocor.danfoss.com

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